



# Search Report

**EIC 1700**

STIC Database Tracking Number: 236558

**To: MICHAEL BERNSTEYN**  
**Location: REM-10D25**  
**Art Unit: 1713**  
**Tuesday, September 18, 2007**

**Case Serial Number: 10/537120**

**From: USHA SHRESTHA**  
**Location: EIC1700**  
**REM-4B28 / REM-4B31**  
**Phone: (571)272-3519**

**[usha.shrestha@uspto.gov](mailto:usha.shrestha@uspto.gov)**

## Search Notes

Examiner BERNSTEYN:

Please see the search results, feel free to contact me if you have any questions or if you like to refine the search query. Thank you for using STIC services!

Regards,  
Usha



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1713

➤ Relevant prior art found, search results used as follows:

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- Foreign Patent(s)
- Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SCIENTIFIC REFERENCE  
Sci & Tech Inf. Ctr.  
SEP 06 RETD  
Pat. & T.M. Office

Access DB# 236558

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: MICHAEL BERNSTEIN Examiner #: 81515 Date: 09/05/07  
Art Unit: 1713 Phone Number 30 272-2411 Serial Number: 10/537,120  
Mail Box and Bldg/Room Location: Rem 10025 Results Format Preferred (circle): PAPER  DISK  E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Unsaturated carboxylic acid hemisuccal ester, polymer,  
Inventors (please provide full names): Hirosi Koyama, Keizo Inoue,  
Takahiro Iwahama, Maki Sumida

Earliest Priority Filing Date: 02/04/2004

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please, try to find a compound of formula (1) with all the limitations of claims 1 and 2, a process of producing the ester of formula (5) according claim 3, and a polymeric compound of formula (I) with the limitations of claims 4-6.

Thank you

M. Bernstein

10/537120

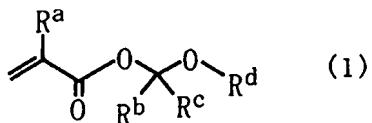
Application No.: Not Yet Assigned

Docket No.: 3273-0203PUS1

JC17 Rec'd PCT/PTO 03 JUN 2005

AMENDMENTS TO THE CLAIMS

Claim 1 (original): An unsaturated carboxylic acid hemiacetal ester represented by the following formula (1);



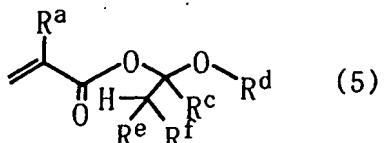
(1)

wherein

$R^a$  is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl group of carbon number 1 to 6,  $R^b$  is a hydrocarbon group having a hydrogen atom at a first position,  $R^c$  is a hydrogen atom or a hydrocarbon group and  $R^d$  is an organic group having a cyclic skeleton.

Claim 2 (original): An unsaturated carboxylic acid hemiacetal ester according to Claim 1, wherein a cyclic skeleton in  $R^d$  is a lactone skeleton or a non-aromatic polycyclic skeleton.

Claim 3 (original): A process of producing an unsaturated carboxylic acid hemiacetal ester, wherein the unsaturated carboxylic acid hemiacetal ester represented by the following formula (5);

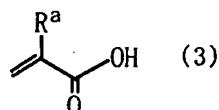


(5)

wherein

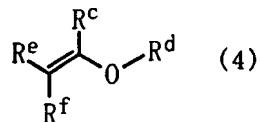
$R^a$  is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl

group of carbon number 1 to 6, R<sup>c</sup> is a hydrogen atom or a hydrocarbon group, R<sup>d</sup> is an organic group having a cyclic skeleton and each of R<sup>e</sup> and R<sup>f</sup> is a hydrogen atom or a hydrocarbon group; is obtained by allowing an unsaturated carboxylic acid represented by the following formula (3);



wherein

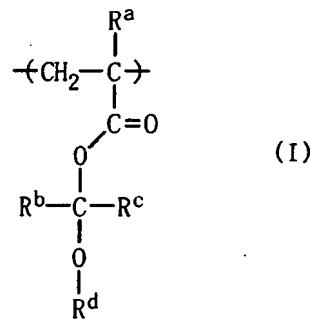
R<sup>a</sup> is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl group of carbon number 1 to 6; to react with a vinyl ether compound represented by the following formula (4);



wherein

R<sup>c</sup> is a hydrogen atom or a hydrocarbon group, R<sup>d</sup> is an organic group having a cyclic skeleton and each of R<sup>e</sup> and R<sup>f</sup> is a hydrogen atom or a hydrocarbon group.

Claim 4 (original): A polymeric compound having a repeated unit represented by the formula (I);



wherein R<sup>a</sup> is a hydrogen atom, a halogen atom, an alkyl group of carbon number 1 to 6 or a haloalkyl group of carbon number 1 to 6, R<sup>b</sup> is a hydrocarbon group having a hydrogen atom at a first poison, R<sup>c</sup> is a hydrogen atom or a hydrocarbon group and R<sup>d</sup> is an organic group having a cyclic skeleton.

Claim 5 (original): A polymeric compound according to Claim 4, further having a repeated unit corresponding to at least one monomer selected from a monomer having a lactone skeleton, a monomer having a cyclic ketone skeleton, a monomer having an acid anhydride group and a monomer having an imide group; provided that except for a repeated unit represented by the formula (I).

Claim 6 (original): A polymeric compound according to Claim 4 or Claim 5, further having a repeated unit corresponding to at least one monomer selected from a monomer having a hydroxyl group, a monomer having a mercapto group and a monomer having a carboxyl group.

Claim 7 (currently amended): A photoresist resin composition containing at least a polymeric compound described in ~~any one of Claim 4 to Claim 6~~ Claim 4 and a photo-acid generator.

Claim 8 (original): A process of producing a semi-conductor comprising

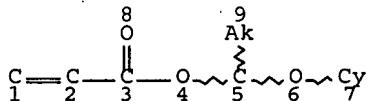
Application No.: Not Yet Assigned

Docket No.: 3273-0203PUS1

steps of coating a photoresist resin composition described in Claim 7 on a base or substrate to form a resist film and forming a pattern through exposure and development.

=> d que 19

L3 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L5	105 SEA FILE=REGISTRY SSS FUL L3
L7	70 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
L8	63 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 AND (1840-2004)/PRY,AY, PY
L9	48 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND PREP/RL

=> d 19 1-48 ibib ed abs hitstr hitind

L9 ANSWER 1 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:982616 HCAPLUS Full-text  
 DOCUMENT NUMBER: 145:366502  
 TITLE: Composition for forming lower layer film for  
lithography comprising compound having protected  
carboxyl group  
 INVENTOR(S): Takei, Satoshi; Kishioka, Takahiro; Sakaida,  
Yasushi; Shinjo, Tetsuya  
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 26pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006210915	A1	20060921	US 2006-565968 <--	20060131
US 7226721	B2	20070605	JP 2003-282738 <--	A 20030730
PRIORITY APPLN. INFO.:			JP 2003-345476 <--	A 20031003
			WO 2004-JP10939 <--	W 20040730

ED Entered STN: 22 Sep 2006

AB There is provided an underlayer coating forming composition for lithog., and an underlayer coating having a high dry-etching rate compared with photoresist, and causing no intermixing with the photoresist, which are used in lithog. process of manufacture of semiconductor device. Concretely it is an underlayer coating forming composition comprising a compound having a protected carboxyl group, a compound having a group capable of reacting with a carboxyl group and a solvent, and an underlayer coating forming composition comprising a compound having a group capable of reacting with a carboxyl group and a protected carboxyl group and a solvent.

IT 910305-15-6P

(composition for forming lower layer film for lithog. containing)

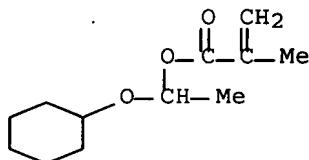
RN 910305-15-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

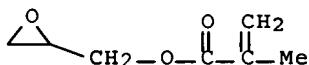
CMF C12 H20 O3



CM 2

CRN 106-91-2

CMF C7 H10 O3



INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 682744-69-0P 890015-04-0P 910305-15-6P 910305-16-7P

910305-17-8P 910305-18-9P 910305-19-0P

(composition for forming lower layer film for lithog. containing)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:492637 HCPLUS Full-text  
 DOCUMENT NUMBER: 144:477832

TITLE: Preparation of photopolymers having high sensitivity to deep UV or electron beams for resists  
 INVENTOR(S): Momose, Akira; Mihashi, Takashi; Otake, Atsushi; Ueda, Shoji  
 PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131739	A	20060525	JP 2004-321906 <--	20041105
PRIORITY APPLN. INFO.:			JP 2004-321906 <--	20041105

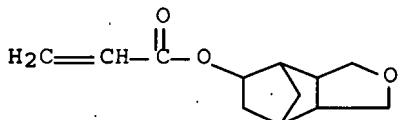
ED Entered STN: 26 May 2006  
 AB The polymers having unit  $[H_2CCR11[Z[OCHA(OR14)]n]]$  (R11 = H, Me; Z = single bond, alkane-derived 2-to-4-valent group, C4-20 alicyclic hydrocarbylene, etc.; n = 1-3; A = Me; R14 = C4-20 monovalent alicyclic hydrocarbyl, C1-5 alkyl), are prepared by solution polymerization and (re)precipitated from organic solvents chosen from (halo)hydrocarbons, nitro compds., nitriles, ethers, ketones, esters, and/or carbonates. Resists containing the polymers are pasted on substrates, exposed to  $\leq 250$ -nm light, and wet developed to give fine patterns.  
 IT 876655-79-7P  
     (preparation of acid-labile photopolymers through repptn. from prescribed solvents for pos. photoresists)  
 RN 876655-79-7 HCPLUS  
 CN 2-Propenoic acid, 2-methyl-, 5(or 6)-cyanobicyclo[2.2.1]hept-2-yl ester, polymer with 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate and octahydro-1(or 3)-oxo-4,7-methanoisobenzofuran-5-yl 2-propenoate (9CI)  
     (CA INDEX NAME)

CM 1

CRN 436852-35-6

CMF C12 H14 O4

CCI IDS

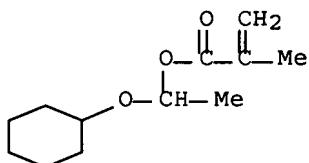


D2=O

CM 2

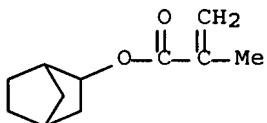
CRN 143556-62-1

CMF C12 H20 O3



CM 3

CRN 130668-19-8  
 CMF C12 H15 N O2  
 CCI IDS



D1-CN

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 37  
 IT 258879-87-7P 876655-79-7P  
 (preparation of acid-labile photopolymers through repptn. from prescribed solvents for pos. photoresists)

L9 ANSWER 3 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:170173 HCPLUS Full-text  
 DOCUMENT NUMBER: 144:243409  
 TITLE: Polymers for photoresists, their compositions, and excimer laser- or electron beam-photolithography using them for patterns with no defects and good dry etching resistance  
 INVENTOR(S): Momose, Akira; Otake, Atsushi; Mitsuhashi, Takashi; Ueda, Shoji  
 PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2006052373	A	20060223	JP 2004-295585	20041008

PRIORITY APPLN. INFO.:

JP 2004-117113

A 20040412

<--  
JP 2004-207487

A 20040714

&lt;--

ED Entered STN: 24 Feb 2006  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The polymers comprise (A) lactone-containing units I [R41 = H, Me; R401, R402 = H, C1-6 alkyl, OH, CO2H, C1-6 alkyl carboxylate, etc.; X5 = (un)substituted C1-6 alkyl, OH, CO2H, C1-6 acyl, amino, etc.; i = 0, 1; n5 = 0-4; m = 1, 2], II [R42 = same as R41; R201, R202 = C1-6 alkyl, OH, CO2H, C1-6 alkyl carboxylate; A1, A2 = same as R401, R402; X6 = same as X5; n6 = 0-4], etc., (B) units containing acid-dissociable groups III (R31 = H, Me; R1 = C1-3 alkyl; X1 = C1-6 alkyl; n1 = 0-4), CH2CR32[CO2CR321R322(OR323)] (R32 = H, Me; R323 = C4-20 alicyclic, C1-4 alkyl; R321, R322 = H, C1-4 alkyl, etc.), etc., and (C) units containing hydrophilic alicyclic structures IV [R51 = H, Me; R501 = H, C1-3 alkyl; X51 = (un)substituted C1-6 alkyl, C(CF3)2OH, OH, cyano, CO2H, C1-6 acyl, amino, etc.; n51 = 1-4], CH2CR52(CO2CR521R522X52) (R52 = H, Me; R521 = C1-6 alkyl, OH, CO2H, etc.; R522 = C1-6 alkyl, bridged cyclic hydrocarbon group with R521; X52 = same as X51), etc., wherein the polymers are terminated with groups of QB1Y [B1 = (un)substituted C1-20 alkylene (substituent = C1-6 alkyl carboxylate, cyano, amino), cyclic hydrocarbylene; Y = OH, CO2H, SO3H, CONHR1, OSO2NHR1; R1 = C1-6 alkyl, cycloalkyl; Q = direct bond, S, O, NB2; B2 = H, C1-10 alkyl, cycloalkyl].

IT 876655-80-0P

(terminated acrylic telomers for excimer laser or electron-sensitive photoresists for patterns with no defects and good dry etching resistance)

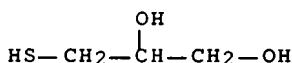
RN 876655-80-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 5(or 6)-cyanobicyclo[2.2.1]hept-2-yl ester, telomer with 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate, 3-mercaptop-1,2-propanediol and octahydro-1(or 3)-oxo-4,7-methanoisobenzofuran-5-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 96-27-5

CMF C3 H8 O2 S



CM 2

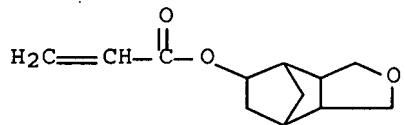
CRN 876655-79-7

CMF (C12 H20 O3 . C12 H15 N O2 . C12 H14 O4)x

CCI PMS

CM 3

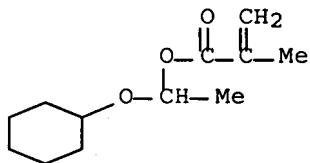
CRN 436852-35-6  
 CMF C12 H14 O4  
 CCI IDS



D2=O

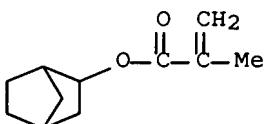
CM 4

CRN 143556-62-1  
 CMF C12 H20 O3



CM 5

CRN 130668-19-8  
 CMF C12 H15 N O2  
 CCI IDS



D1-CN

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38  
 IT 876655-60-6P 876655-61-7P 876655-63-9P 876655-64-0P  
 876655-66-2P 876655-68-4P 876655-70-8P 876655-72-0P  
 876655-73-1P 876655-75-3P 876655-76-4P 876655-78-6P

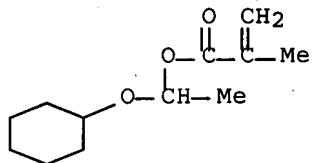
876655-80-0P 876732-81-9P 876732-85-3P  
 (terminated acrylic telomers for excimer laser or  
 electron-sensitive photoresists for patterns with no defects and  
 good dry etching resistance)

L9 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:1003297 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:288053  
 TITLE: Epoxy-containing resin compositions for color  
 filter protective coatings with good flatness,  
 transparency, and surface hardness  
 INVENTOR(S): Baba, Atsushi; Yamazaki, Natsuki; Nishikawa,  
 Michinori  
 PATENT ASSIGNEE(S): JSR Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005248129	A	20050915	JP 2004-64346	20040308
JP 3831947	B2	20061011	<--	
KR 2004081302	A	20040921	KR 2004-15755	20040309
PRIORITY APPLN. INFO.:				
			JP 2003-62696	A 20030310
			<--	
			JP 2003-397908	A 20031127
			<--	
			JP 2004-27180	A 20040203
			<--	

ED Entered STN: 16 Sep 2005  
 AB Title compns. comprise (A) polymers with weight average mol. weight  $\geq$ 2000 (GPC measurement based on polystyrene standard) having epoxy structures and  $\geq$ 1 structure selected from carboxylic acid acetal ester structures, carboxylic acid ketal ester structures, and carboxylic acid tert-Bu ester structures and (B) compds. having  $\geq$ 2 epoxy structures excluding A. Thus, styrene 25, 1-(cyclohexyloxy)ethyl methacrylate 20, glycidyl methacrylate 45, and tricyclo[5.2.1.0<sub>2,6</sub>]decan-8-yl methacrylate were polymerized at 70° to give a copolymer with Mw 20,000 and polydispersity 2.5, 100 parts of which was mixed with Epikote 157S65 10.0, SH 28PA (surfactant) 0.1,  $\gamma$ -glycidoxypropyltrimethoxysilane 15, and benzoyl-2-methyl-4-hydroxyphenylmethylsulfonium hexafluoroantimonate 1 parts, applied on a glass substrate, prebaked at 80° for 5 min, and heat-treated at 230° for 60 min to give a protective coating, showing good heat resistance, transparency, flatness, adhesion, pencil hardness 4H, and dynamic microhardness 29 at 23° and 25 at 140°.  
 IT 824955-64-8P 824955-65-9P 864376-38-5P  
 (epoxy-containing resin compns. for color filter protective coatings with good flatness, transparency, and surface hardness)  
 RN 824955-64-8 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with Epikote 157S65, ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

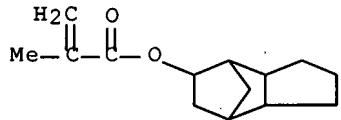
CRN 143556-62-1  
CMF C12 H20 O3

CM 2

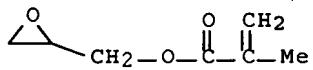
CRN 137598-82-4  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 34759-34-7  
CMF C14 H20 O2

CM 4

CRN 106-91-2  
CMF C7 H10 O3

CM 5

CRN 100-42-5  
CMF C8 H8



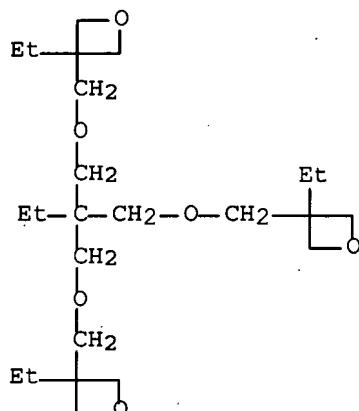
RN 824955-65-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, 3,3'-[2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl]-1,3-propanediyl]bis(oxymethylene)bis[3-ethyloxetane], octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180423-87-4

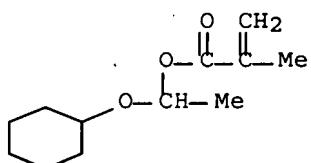
CMF C24 H44 O6



CM 2

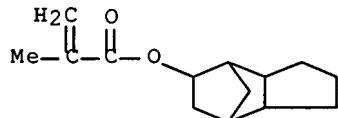
CRN 143556-62-1

CMF C12 H20 O3



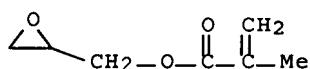
CM 3

CRN 34759-34-7  
 CMF C14 H20 O2



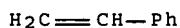
CM 4

CRN 106-91-2  
 CMF C7 H10 O3



CM 5

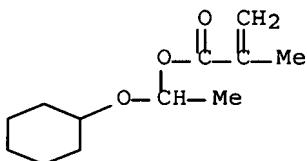
CRN 100-42-5  
 CMF C8 H8



RN 864376-38-5 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with 1-cyclohexyl-1H-pyrrole-2,5-dione, Epikote 157S65, ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1  
 CMF C12 H20 O3



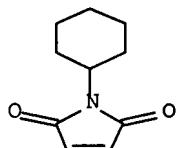
CM 2

CRN 137598-82-4  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

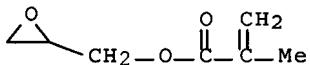
CM 3

CRN 1631-25-0  
 CMF C10 H13 N O2



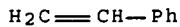
CM 4

CRN 106-91-2  
 CMF C7 H10 O3



CM 5

CRN 100-42-5  
 CMF C8 H8



IT 864376-32-9P 864376-34-1P

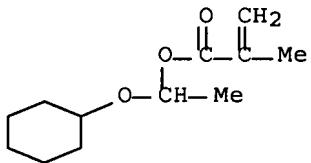
(intermediate; epoxy-containing resin compns. for color filter protective coatings with good flatness, transparency, and surface hardness)

RN 864376-32-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

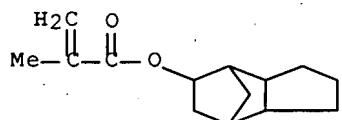
CM 1

CRN 143556-62-1  
CMF C12 H20 O3



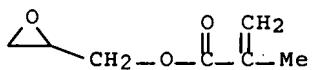
CM 2

CRN 34759-34-7  
CMF C14 H20 O2



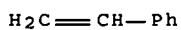
CM 3

CRN 106-91-2  
CMF C7 H10 O3



CM 4

CRN 100-42-5  
CMF C8 H8

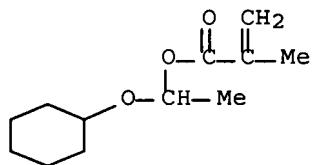


RN 864376-34-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with 1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

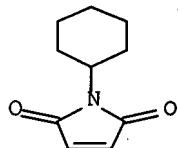
CM 1

CRN 143556-62-1  
CMF C12 H20 O3



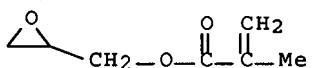
CM 2

CRN 1631-25-0  
CMF C10 H13 N O2



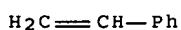
CM 3

CRN 106-91-2  
CMF C7 H10 O3



CM 4

CRN 100-42-5  
CMF C8 H8



IC ICM C08G059-42  
 ICS G02F001-1335  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 74  
 IT 824955-64-8P 824955-65-9P 824955-66-0P,  
 N-Cyclohexylmaleimide-Epikote 157S65-glycidyl methacrylate-styrene-  
 tetrahydro-2H-pyran-2-yl methacrylate copolymer 824955-67-1P  
 864376-38-5P 864376-39-6P 864376-40-9P 864376-41-0P  
 (epoxy-containing resin compns. for color filter protective coatings  
 with good flatness, transparency, and surface hardness)  
 IT 864376-32-9P 864376-33-0P 864376-34-1P  
 864376-35-2P 864376-36-3P 864376-37-4P  
 (intermediate; epoxy-containing resin compns. for color filter  
 protective coatings with good flatness, transparency, and surface  
 hardness)

L9 ANSWER 5 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:823680 HCPLUS Full-text  
 DOCUMENT NUMBER: 143:219461  
 TITLE: Unsaturated carboxylic acid hemiacetal esters and  
 polymers for resin composition for photoresists  
 with good acid release  
 INVENTOR(S): Koyama, Hiroshi; Inoue, Keizo; Iwahama, Takahiro;  
 Sumida, Mari  
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 60 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005075446	A1	20050818	WO 2005-JP794	20050117 <--
WO 2005075446	A9	20051006		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
JP 2005220059	A	20050818	JP 2004-28595	20040204 <--
JP 2005248153	A	20050915	JP 2004-303478	20041018 <--
US 2006160247	A1	20060720	US 2005-537120 JP 2004-28594	20050603 <--
PRIORITY APPLN. INFO.:			JP 2004-28595	A 20040204 <--

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A 20041018

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WO 2005-JP794

W 20050117

OTHER SOURCE(S) : MARPAT 143:219461

ED Entered STN: 19 Aug 2005

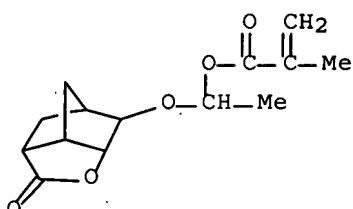
AB Title polymers comprise repeating units  $\text{CH}_2:\text{CRaCOOCRbRcORD}$ , wherein Ra = H, halogeno, C1-6 alkyl, or C1-6 haloalkyl; Rb = hydrocarbon group having a hydrogen atom in the 1-position; Rc = H or a hydrocarbon group; and Rd = organic group containing a cyclic skeleton. The polymers may further contain repeating units corresponding to  $\geq 1$  monomer selected from monomers having a lactone skeleton, monomers having a cyclic ketone skeleton, monomers having an acid anhydride group, and monomers having an imide group (excluding the unsatd. carboxylic acid hemiacetal ester repeating unit and/or monomer selected from monomers having a hydroxy group, etc.). Thus, 0.118 mol 2-vinyloxy-4-oxatricyclo[4.2.1.03,7]nonan-5-one and 0.59 mol methacrylic acid were reacted at 20° for 6 h in the presence of 0.12 mmol 4-methoxyphenol and 120 mg phosphoric acid to give 2-(1-methacryloyloxyethoxy)-4-oxatricyclo[4.2.1.03,7]nonan-5-one, 5.41 g of which was polymerized with 4.93 g 1-methacryloyloxy-4-oxatricyclo[4.3.1.13,8]undecan-5-one and 4.66 g 1-hydroxy-3-methacryloyloxyadamantane in the presence of V 601 (dimethyl-2,2'-azobis(2-methylpropionate)) to give a copolymer with Mw 9800 and polydispersity 1.88, 100 parts of the resulting copolymer was mixed with 10 parts triphenylsulfonium hexafluoroantimonate and propylene glycol monomethyl ether, applied on a silicon wafer, prebaked at 100° for 150 s, irradiated through a photomask, post-baked at 100° for 60 s, developed using 0.3 M an aqueous tetramethylammonium hydroxide soln, showing good pattern.

IT 862474-62-2P 862474-64-4P 862474-66-6P

(monomer; preparation of unsatd. carboxylic acid hemiacetal esters and polymers for resin composition for photoresists with good acid release)

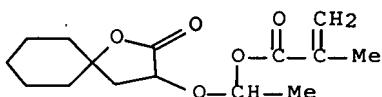
RN 862474-62-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



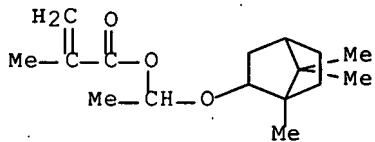
RN 862474-64-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(2-oxo-1-oxaspiro[4.5]dec-3-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



RN 862474-66-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(1,7,7-trimethylbicyclo[2.2.1]hept-2-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



IT 862474-67-7P 862474-68-8P 862474-69-9P

862474-70-2P 862474-71-3P 862474-72-4P

862474-74-6P

(preparation of unsatd. carboxylic acid hemiacetal esters and polymers for resin composition for photoresists with good acid release)

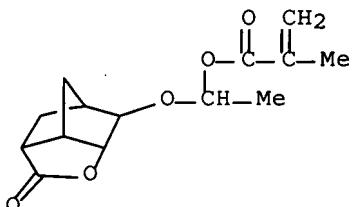
RN 862474-67-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl)oxy]ethyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 862474-62-2

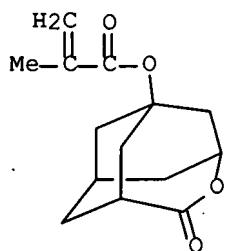
CMF C14 H18 O5



CM 2

CRN 348596-87-2

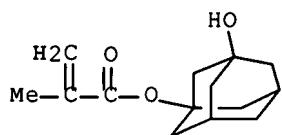
CMF C14 H18 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



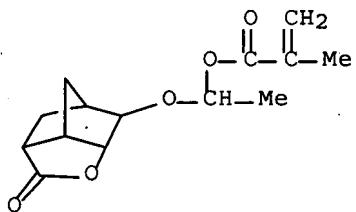
RN 862474-68-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl)oxy]ethyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 862474-62-2

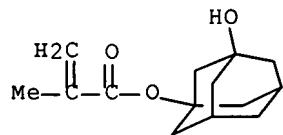
CMF C14 H18 O5



CM 2

CRN 115372-36-6

CMF C14 H20 O3



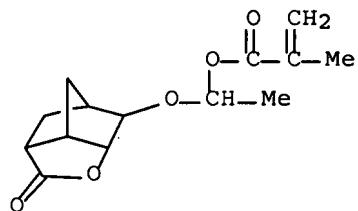
RN 862474-69-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-[(hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl)oxy]ethyl 2-methyl-2-propenoate and 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 862474-62-2

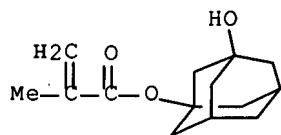
CMF C14 H18 O5



CM 2

CRN 115372-36-6

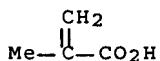
CMF C14 H20 O3



CM 3

CRN 79-41-4

CMF C4 H6 O2



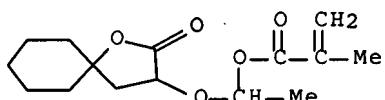
RN 862474-70-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 1-[(2-oxo-1-oxaspiro[4.5]dec-3-yl)oxy]ethyl 2-methyl-2-propenoate and 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 862474-64-4

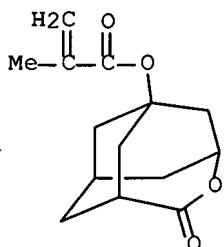
CMF C15 H22 O5



CM 2

CRN 348596-87-2

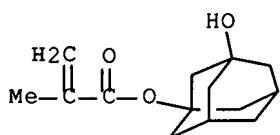
CMF C14 H18 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



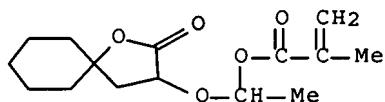
RN 862474-71-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl

ester, polymer with 1-[(2-oxo-1-oxaspiro[4.5]dec-3-yl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

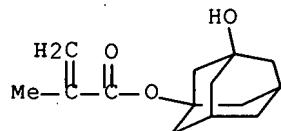
CM 1

CRN 862474-64-4  
CMF C15 H22 O5



CM 2

CRN 115372-36-6  
CMF C14 H20 O3

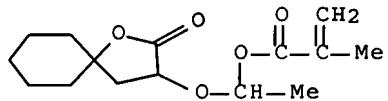


RN 862474-72-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and 1-[(2-oxo-1-oxaspiro[4.5]dec-3-yl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

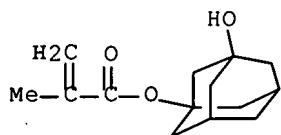
CM 1

CRN 862474-64-4  
CMF C15 H22 O5

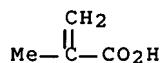


CM 2

CRN 115372-36-6  
CMF C14 H20 O3

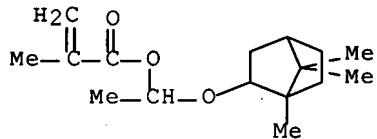


CM 3

CRN 79-41-4  
CMF C4 H6 O2

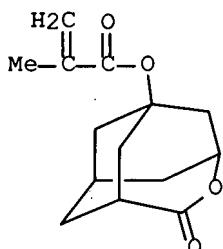
RN 862474-74-6 HCPLUS  
 CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and 1-[(1,7,7-trimethylbicyclo[2.2.1]hept-2-yl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 862474-66-6  
CMF C16 H26 O3

CM 2

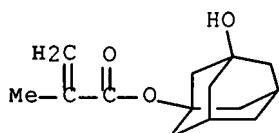
CRN 348596-87-2  
CMF C14 H18 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



IC ICM C07D307-00

ICS C07D307-94; C07C069-54; C08F220-26; G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38, 76

IT 862474-62-2P 862474-64-4P 862474-65-5P

862474-66-6P

(monomer; preparation of unsatd. carboxylic acid hemiacetal esters and polymers for resin composition for photoresists with good acid release)

IT 862474-67-7P 862474-68-8P 862474-69-9P

862474-70-2P 862474-71-3P 862474-72-4P

862474-73-5P 862474-74-6P

(preparation of unsatd. carboxylic acid hemiacetal esters and polymers for resin composition for photoresists with good acid release)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:813681 HCPLUS Full-text

DOCUMENT NUMBER: 143:238670

TITLE: Unsaturated carboxylic acid hemiacetal esters, their polymers, photoresist compositions containing them with high sensitivity, and manufacture of semiconductor devices using them

INVENTOR(S): Koyama, Hiroshi; Inoue, Keizo; Iwahama, Takahiro  
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., JapanSOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.  
CODEN: JKXXAFDOCUMENT TYPE: Patent  
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005220059	A	20050818	JP 2004-28595	20040204
WO 2005075446	A1	20050818	WO 2005-JP794	20050117
WO 2005075446	A9	20051006		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			JP 2004-28594	A 20040204
			<--	
			JP 2004-28595	A 20040204
			<--	
			JP 2004-303478	A 20041018
			<--	

OTHER SOURCE(S): MARPAT 143:238670

ED Entered STN: 18 Aug 2005

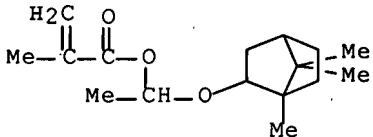
AB The invention relates to hemiacetal unsatd. carboxylates CH<sub>2</sub>:CRaCO<sub>2</sub>CRbRcORD [Ra = H, halo, C1-6 (halo)alkyl; Rb = hydrocarbyl having H at position 1; Rc = H, hydrocarbyl; Rd = organic groups having cyclic structure].

IT 862474-66-6P

(excimer laser-sensitive photoresists of hemiacetal unsatd. carboxylate polymers for semiconductor devices)

RN 862474-66-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(1,7,7-trimethylbicyclo[2.2.1]hept-2-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



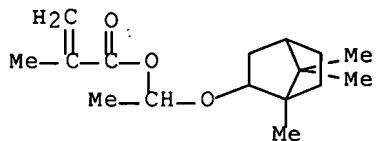
IT 862474-74-6P

(excimer laser-sensitive photoresists of hemiacetal unsatd. carboxylate polymers for semiconductor devices)

RN 862474-74-6 HCPLUS

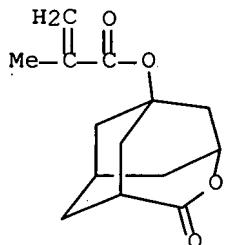
CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and 1-[(1,7,7-trimethylbicyclo[2.2.1]hept-2-yl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CRN 862474-66-6  
 CMF C16 H26 O3



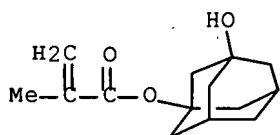
CM 2

CRN 348596-87-2  
 CMF C14 H18 O4



CM 3

CRN 115372-36-6  
 CMF C14 H20 O3



IC ICM C07C069-54  
 ICS C08F020-26; G03F007-039  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38, 76  
 IT 474745-04-5P 862474-65-5P 862474-66-6P  
 (excimer laser-sensitive photoresists of hemiacetal unsatd.  
 carboxylate polymers for semiconductor devices)  
 IT 862474-73-5P 862474-74-6P  
 (excimer laser-sensitive photoresists of hemiacetal unsatd.)

carboxylate polymers for semiconductor devices)

L9 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:57488 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:144314  
 TITLE: Curable polymer compositions, protective films for  
 liquid-crystal displays, and their manufacture  
 INVENTOR(S): Baba, Atsushi; Nishikawa, Michinori  
 PATENT ASSIGNEE(S): JSR Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005017321	A	20050120	JP 2003-177752 ---	20030623
KR 2005000331	A	20050103	KR 2004-46480 ---	20040622
PRIORITY APPLN. INFO.:			JP 2003-177752 ---	A 20030623

ED Entered STN: 21 Jan 2005

AB The compns. comprise (A) polymers having  $\geq 2$  epoxy groups, (B) cationically polymerizable compds. other than A, and (C)  $\geq 1$  compds. selected from thiazoles, thiazolines, sulfenamides, dithiocarbamates, and thiurams. The protective films are manufactured by forming films of the compns. on substrates and then irradiating with radiation and/or heating. The protective films are useful for optical devices such as liquid-crystal displays and charge-coupled devices. The compns. show good transparency, heat and load resistance, surface hardness, adhesion strength, and good leveling property for unevenness of color filters.

IT 824955-64-8P, 1-(Cyclohexyloxy)ethyl methacrylate-dicyclopentanyl methacrylate-Epikote 157S65-glycidyl methacrylate-styrene copolymer 824955-65-9P, 1-Cyclohexyloxyethyl methacrylate-dicyclopentanyl methacrylate-glycidyl methacrylate-styrene-trimethylolpropane tris[(3-ethyl-3-oxetanyl)methyl] ether copolymer (curable epoxy resin compns. with good load resistance for manufacture of protective films for LCD)

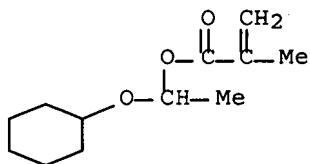
RN 824955-64-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with Epikote 157S65, ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

CMF C12 H20 O3



CM 2

CRN 137598-82-4

CMF Unspecified

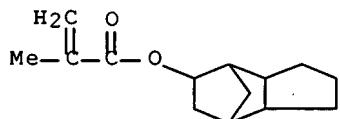
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 34759-34-7

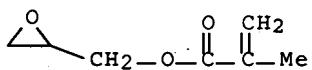
CMF C14 H20 O2



CM 4

CRN 106-91-2

CMF C7 H10 O3



CM 5

CRN 100-42-5

CMF C8 H8

 $\text{H}_2\text{C}=\text{CH-Ph}$

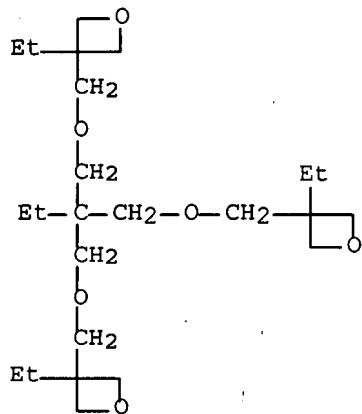
RN 824955-65-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, 3,3'-[2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl]-1,3-propanediyl]bis(oxymethylene)bis[3-ethyloxetane], octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180423-87-4

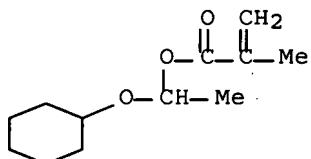
CMF C24 H44 O6



CM 2

CRN 143556-62-1

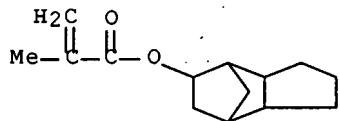
CMF C12 H20 O3



CM 3

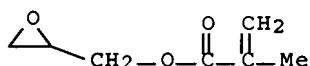
CRN 34759-34-7

CMF C14 H20 O2



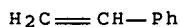
CM 4

CRN 106-91-2  
 CMF C7 H10 O3



CM 5

CRN 100-42-5  
 CMF C8 H8



IC ICM G03F007-038  
 ICS C08G059-20; C08K005-36; C08L063-00; G02B005-20; G03F007-004  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 600737-88-0P, Dicyclopentanyl methacrylate-Epikote 157S65-glycidyl methacrylate-methacrylic acid-styrene copolymer 600737-89-1P, Dicyclopentanyl methacrylate-glycidyl methacrylate-methacrylic acid-styrene-trimethylolpropane tris[(3-ethyl-3-oxetanyl)methyl] ether copolymer 600737-90-4P, N-Cyclohexylmaleimide-Epikote 157S65-glycidyl methacrylate-methacrylic acid-styrene copolymer 756479-35-3P, N-Cyclohexylmaleimide-glycidyl methacrylate-methacrylic acid-styrene-trimethylolpropane tris[(3-ethyl-3-oxetanyl)methyl] ether copolymer 824955-59-1P, 2,4-Diphenyl-4-methyl-1-pentene-Epikote 157S65-glycidyl methacrylate-pyromellitic anhydride-styrene copolymer 824955-60-4P, 2,4-Diphenyl-4-methyl-1-pentene-Epikote 828-glycidyl methacrylate-pyromellitic anhydride-styrene copolymer 824955-61-5P, Dicyclopentanyl methacrylate-2,4-diphenyl-4-methyl-1-pentene-Epikote 157S65-glycidyl methacrylate-pyromellitic anhydride copolymer 824955-63-7P 824955-64-8P, 1-(Cyclohexyloxy)ethyl methacrylate-dicyclopentanyl methacrylate-Epikote 157S65-glycidyl methacrylate-styrene copolymer 824955-65-9P, 1-Cyclohexyloxyethyl methacrylate-dicyclopentanyl methacrylate-glycidyl methacrylate-styrene-trimethylolpropane tris[(3-ethyl-3-oxetanyl)methyl] ether copolymer 824955-66-0P, N-Cyclohexylmaleimide-Epikote 157S65-glycidyl methacrylate-styrene-tetrahydro-2H-pyran-2-yl

methacrylate copolymer 824955-67-1P, N-Cyclohexylmaleimide-glycidyl methacrylate-styrene-tetrahydropyranyl methacrylate-trimethylolpropane tris[(3-ethyl-3-oxetanyl)methyl] ether copolymer  
(curable epoxy resin compns. with good load resistance for manufacture of protective films for LCD)

L9 ANSWER 8 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:33665 HCPLUS Full-text

DOCUMENT NUMBER: 142:103483

TITLE: Storage-stable curable polymer compositions for protective and planarization films of color filters

INVENTOR(S): Baba, Atsushi; Nishikawa, Michinori

PATENT ASSIGNEE(S): JSR Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005008847	A	20050113	JP 2003-305945	20030829
JP 3960281	B2	20070815		<--
KR 2004103328	A	20041208	KR 2004-37645	20040527
PRIORITY APPLN. INFO.:			JP 2003-150242	A 20030528
			<--	
			JP 2003-305945	A 20030829
			<--	

ED Entered STN: 14 Jan 2005

AB The compns., useful for liquid crystal displays, charge-coupled devices, etc., comprise (A) cyclocyclic polymers containing epoxy groups chosen from dicyclopentadiene monoepoxide, epoxycyclohexane, and epoxycyclopentane, and (B) other cationically polymerizable compds. The protective films show good storage stability and heat resistance, and improved adhesion.

IT 819070-66-1P

(storage-stable curable polymer compns. for protective and planarization films of color filters)

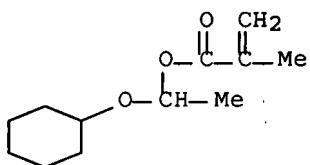
RN 819070-66-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

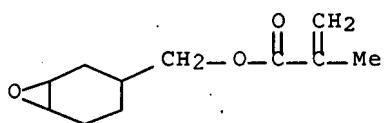
CM 1

CRN 143556-62-1

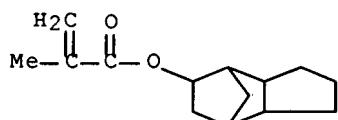
CMF C12 H20 O3



CM 2

CRN 82428-30-6  
CMF C11 H16 O3

CM 3

CRN 34759-34-7  
CMF C14 H20 O2

CM 4

CRN 100-42-5  
CMF C8 H8 $\text{H}_2\text{C}=\text{CH-Ph}$ 

IT 819070-74-1P 819070-76-3P

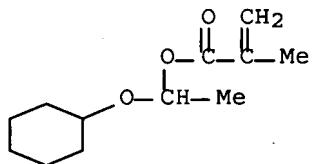
(storage-stable curable polymer compns. for protective and  
planarization films of color filters)

RN 819070-74-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer  
with Epikote 157S65, ethenylbenzene, octahydro-4,7-methano-1H-inden-5-  
yl 2-methyl-2-propenoate and 7-oxabicyclo[4.1.0]hept-3-ylmethyl

2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

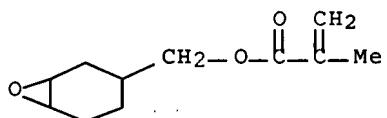
CRN 143556-62-1  
CMF C12 H20 O3

CM 2

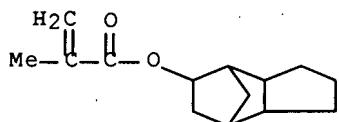
CRN 137598-82-4  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 82428-30-6  
CMF C11 H16 O3

CM 4

CRN 34759-34-7  
CMF C14 H20 O2

CM 5

CRN 100-42-5  
 CMF C8 H8



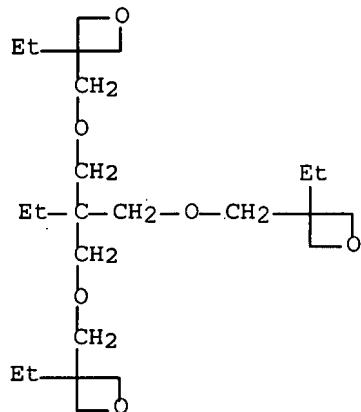
RN 819070-76-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, 3,3'-(2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl)-1,3-propanediyl]bis(oxymethylene)bis[3-ethyloxetane], octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

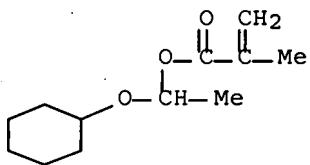
CRN 180423-87-4

CMF C24 H44 O6

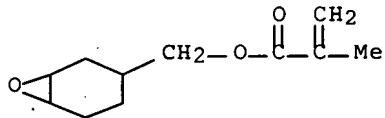


CM 2

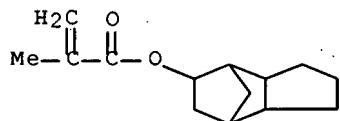
CRN 143556-62-1  
 CMF C12 H20 O3



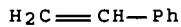
CM 3

CRN 82428-30-6  
CMF C11 H16 O3

CM 4

CRN 34759-34-7  
CMF C14 H20 O2

CM 5

CRN 100-42-5  
CMF C8 H8

IC ICM C08F020-32  
 ICS C08F012-22; C08F016-26; C08F220-02; C08F222-02; C08G059-20  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38, 73  
 IT 154065-85-7P, (3,4-Epoxyhexyl)methyl methacrylate-styrene  
 copolymer 819070-62-7P 819070-64-9P 819070-65-0P  
 819070-66-1P 819070-67-2P  
 (storage-stable curable polymer compns. for protective and  
 planarization films of color filters)  
 IT 819070-68-3P 819070-69-4P 819070-70-7P 819070-71-8P  
 819070-72-9P 819070-73-0P 819070-74-1P 819070-75-2P  
 819070-76-3P 819070-77-4P  
 (storage-stable curable polymer compns. for protective and  
 planarization films of color filters)

L9 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

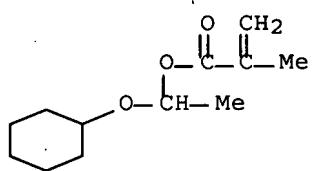
ACCESSION NUMBER: 2004:779249 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:285811  
 TITLE: Light-sensitive polymerizable resin composition  
       for fabricating interlayer electrically insulative  
       films and micro lens and method for manufacturing  
       product using the same  
 INVENTOR(S): Takamoto, Eiji; Sano, Kimiyasu; Nishikawa,  
                   Michinori  
 PATENT ASSIGNEE(S): JSR Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004264623	A	20040924	JP 2003-55176	20030303
TW 266889	B	20061121	TW 2004-93104802	20040225
KR 2004078554	A	20040910	KR 2004-13372	20040227
PRIORITY APPLN. INFO.:			JP 2003-55176	A 20030303
			<--	

ED    Entered STN: 24 Sep 2004  
 AB    The title composition contains a polymer and a photoacid generator, wherein  
       the polymer has epoxy groups and acetal or ketal groups and  $\geq 2,000$  weight  
       average mol. weight calculated as polystyrene mol. weight by GPC anal. and  
       wherein the photo-acid generator generates an acid of  $\leq 4.0$  pKa. The  
       composition shows high sensitivity and good storageability and provides wide  
       development margin and films of good contact with substrate.  
 IT    760192-27-6P, 1-Cyclohexyloxyethyl methacrylate-styrene-  
       glycidyl methacrylate-2-hydroxyethyl methacrylate- $\alpha$ -  
       Methylstyrene copolymer 760192-30-1P,  
       Tricyclo[5.2.1.0<sup>2,6</sup>]decanyl methacrylate-1-Cyclohexyloxyethyl  
       methacrylate-styrene-glycidyl methacrylate- $\alpha$ -Methylstyrene  
       copolymer 760192-31-2P, 4-Vinylbenzyl glycidyl  
       ether-1-Cyclohexyloxyethyl methacrylate-styrene-2-hydroxyethyl  
       methacrylate-glycidyl methacrylate- $\alpha$ -Methylstyrene copolymer  
       (light-sensitive polymerizable resin composition)  
 RN    760192-27-6 HCAPLUS  
 CN    2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer  
       with ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate,  
       (1-methylethenyl)benzene and oxiranylmethyl 2-methyl-2-propenoate  
       (9CI) (CA INDEX NAME)

CM    1

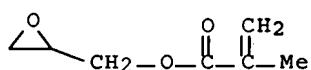
CRN 143556-62-1  
 CMF C12 H20 O3



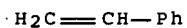
CM 2

CRN 868-77-9  
CMF C<sub>6</sub> H<sub>10</sub> O<sub>3</sub>

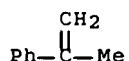
CM 3

CRN 106-91-2  
CMF C<sub>7</sub> H<sub>10</sub> O<sub>3</sub>

CM 4

CRN 100-42-5  
CMF C<sub>8</sub> H<sub>8</sub>

CM 5

CRN 98-83-9  
CMF C<sub>9</sub> H<sub>10</sub>

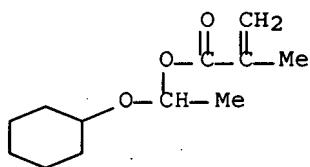
RN 760192-30-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, (1-methylethenyl)benzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

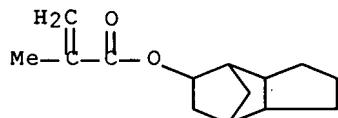
CMF C12 H20 O3



CM 2

CRN 34759-34-7

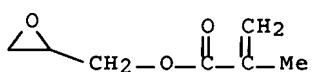
CMF C14 H20 O2



CM 3

CRN 106-91-2

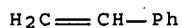
CMF C7 H10 O3



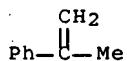
CM 4

CRN 100-42-5

CMF C8 H8



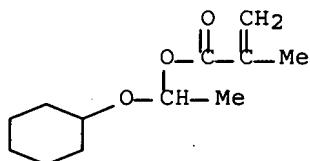
CM 5

CRN 98-83-9  
CMF C9 H10

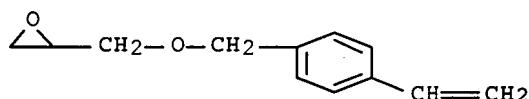
RN 760192-31-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with ethenylbenzene, [(4-ethenylphenyl)methoxy]methyl oxirane, 2-hydroxyethyl 2-methyl-2-propenoate, (1-methylethethyl)benzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

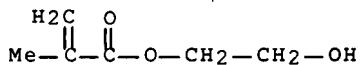
CRN 143556-62-1  
CMF C12 H20 O3

CM 2

CRN 113538-80-0  
CMF C12 H14 O2

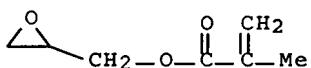
CM 3

CRN 868-77-9  
CMF C6 H10 O3



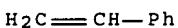
CM 4

CRN 106-91-2  
CMF C7 H10 O3



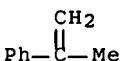
CM 5

CRN 100-42-5  
CMF C8 H8



CM 6

CRN 98-83-9  
CMF C9 H10



IC ICM G03F007-038  
ICS G02B001-04; G03F007-004  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 37, 76  
IT 760192-27-6P, 1-Cyclohexyloxyethyl methacrylate-styrene-glycidyl methacrylate-2-hydroxyethyl methacrylate- $\alpha$ -Methylstyrene copolymer 760192-28-7P, 1-Ethoxyethyl methacrylate-styrene-glycidyl methacrylate-2-hydroxyethyl

methacrylate- $\alpha$ -Methylstyrene copolymer 760192-29-8P,  
 Tetrahydropyranyl methacrylate-styrene-glycidyl methacrylate-2-  
 hydroxyethyl methacrylate- $\alpha$ -Methylstyrene copolymer  
 760192-30-1P, Tricyclo[5.2.1.02,6]decanyl methacrylate-1-  
 Cyclohexyloxyethyl methacrylate-styrene-glycidyl methacrylate- $\alpha$ -  
 Methylstyrene copolymer 760192-31-2P, 4-Vinylbenzyl glycidyl  
 ether-1-Cyclohexyloxyethyl methacrylate-styrene-2-hydroxyethyl  
 methacrylate-glycidyl methacrylate- $\alpha$ -Methylstyrene copolymer  
 (light-sensitive polymerizable resin composition)

L9 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:492719 HCAPLUS Full-text

DOCUMENT NUMBER: 141:62033

TITLE: Cellulose acylate films for optical uses, their manufacture, and liquid crystal displays and photographic films employing the same

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004168905	A	20040617	JP 2002-336954	20021120
			<--	
PRIORITY APPLN. INFO.:			JP 2002-336954	20021120
			<--	

ED Entered STN: 18 Jun 2004

AB Cellulose acylate dopes containing photopolymn. macromol. initiators TL1D1(OE1OCOE2CO)nR1 or TL2D2(OCE1CO2E2O)nR2 [T = dithiocarbamato, xanthato; L1, L2 = bivalent bridging group; E1, E2 = bivalent aliphatic and/or aromatic group; D1 = CH<sub>2</sub>, CO; D2 = O, NH; R1 = OH, OR<sub>5</sub>, NR<sub>6</sub>R<sub>7</sub> (R<sub>5</sub> = C<sub>1</sub>-12 hydrocarbyl; R<sub>6</sub>, R<sub>7</sub> = H, C<sub>1</sub>-12 hydrocarbyl); R<sub>2</sub> = H, C<sub>1</sub>-12 hydrocarbyl, COR<sub>8</sub>, CONHR<sub>9</sub> (R<sub>8</sub>, R<sub>9</sub> = C<sub>1</sub>-12 hydrocarbyl)], and radical monomers are cast and exposed to light to form the claimed films. The dopes may contain light-stable monomers and multifunctional monomers. LCD employing the films are also claimed. Photog. films having supports comprising 30-250- $\mu$ m-thick films obtained as above, are further claimed. The films show improved flexural strength, storage stability, transparency, and tear strength.

IT 708212-33-3P  
 (tear-resistant cellulose acylate films containing radically-polymerized block copolymers for optical uses)

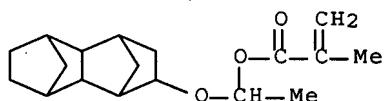
RN 708212-33-3 HCAPLUS

CN Heptanedioic acid, polymer with 1-[(decahydro-1,4:5,8-dimethanonaphthalen-2-yl)oxy]ethyl 2-methyl-2-propenoate, decahydro-1,5-naphthalenediol and hexylbutanedioic acid, diblock (9CI)  
 (CA INDEX NAME)

CM 1

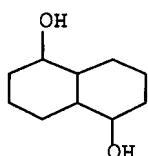
CRN 658060-19-6

CMF C18 H26 O3



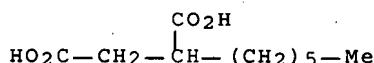
CM 2

CRN 66818-21-1  
CMF C10 H18 Q2



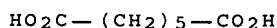
CM 3

CRN 5702-91-0  
CMF C10 H18 04



CM 4

CRN 111-16-0  
CMF C7 H12 04



IC ICM C08F002-44  
ICS C08F002-50; C08F251-02; C08J005-18; G02B005-30; G03C001-795;  
C08L001-12

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s) : 38, 73

IT 79-41-4DP, Methacrylic acid, diblock polymers 80-62-6DP, Methyl methacrylate, diblock polymers 105-08-8DP, 1,4-Cyclohexanedimethanol, diblock polymers 108-30-5DP, Succinic anhydride, diblock polymers 3066-71-5DP, diblock polymers

3971-31-1DP, 1,3-Cyclohexanedicarboxylic acid, diblock polymers  
 676353-20-1DP, diblock polymers 708212-12-8P 708212-14-0P  
 708212-15-1P. 708212-16-2P 708212-17-3P 708212-18-4P  
 708212-19-5P 708212-20-8P 708212-21-9P 708212-22-0P  
 708212-23-1P 708212-24-2P 708212-25-3P 708212-26-4P  
 708212-28-6P 708212-29-7P 708212-30-0P 708212-31-1P  
 708212-32-2P 708212-33-3P 708212-34-4P 708212-35-5P  
 708212-38-8P 708212-40-2P 708212-43-5P 708212-45-7P  
 708274-97-9P, 1,6-Hexanediol-glutaric anhydride-methyl methacrylate  
 diblock copolymer 708275-31-4P 708275-33-6P 708275-34-7P  
 708275-35-8P  
 (tear-resistant cellulose acylate films containing radically-polymerized  
 block copolymers for optical uses)

L9 ANSWER 11 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:432933 HCPLUS Full-text

DOCUMENT NUMBER: 140:431323

TITLE: Cellulose acylate films, their manufacture, and  
 optical sheets, polarizers, liquid crystal  
 displays, and silver halide photographic materials  
 using them

INVENTOR(S): Kato, Eiichi; Moto, Takahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 66 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004148811	A	20040527	JP 2003-349004	20031008
<--				

PRIORITY APPLN. INFO.: JP 2002-294914 A 20021008

<--

ED Entered STN: 28 May 2004

AB The films, showing good tear strength, moisture impermeability, and storage  
 stability and low dependence of retardation on temperature and moisture, are  
 manufactured by casting compns. containing cellulose acylates, radically  
 polymerizable monomers bearing cycloaliph. hydrocarbon groups, and  
 photopolymn. initiators and irradiating them with lights.

IT 658060-20-9P

(manufacture of cellulose acylate films with good storage stability and  
 low dependence of retardation on temperature and moisture for optical  
 films, polarizers, and photog. films)

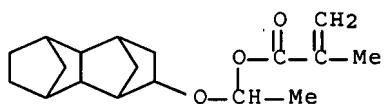
RN 658060-20-9 HCPLUS

CN Butanedioic acid, 5-[4-(5-chloro-2H-benzotriazol-2-yl)-5-hydroxy-2-  
 methylphenoxy]-2-hydroxypentyl 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl  
 ester, polymer with 1-[(decahydro-1,4:5,8-dimethanonaphthalen-2-  
 yl)oxy]ethyl 2-methyl-2-propenoate and 3-[(1-ethyl-2,2,6,6-tetramethyl-  
 4-piperidinyl)oxy]-2-hydroxypropyl 2-methyl-2-propenoate (9CI) (CA  
 INDEX NAME)

CM 1

CRN 658060-19-6

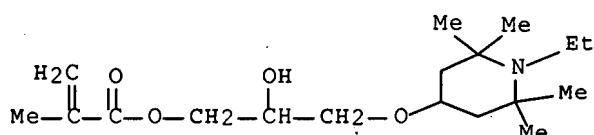
CMF C18 H26 O3



CM 2

CRN 658059-88-2

CMF C18 H33 N 04

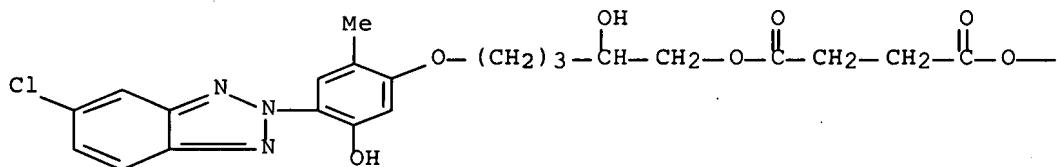


CM 3

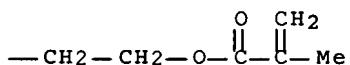
CRN 658059-87-1

CMF C28 H32 Cl N3 O9

PAGE 1-A



PAGE 1-B



IC ICM B29C041-24

ICS G02B005-30; G02F001-1335; G03C001-795; B29K001-00; B29L007-00

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 99732-63-5P 658059-80-4P 658059-82-6P 658060-11-8P  
 658060-13-0P 658060-20-9P 658063-12-8P 658063-14-0P  
 676265-38-6P 676265-41-1P 693274-42-9P 693274-43-0P  
 693274-44-1P 693274-45-2P 693274-46-3P 693274-47-4P

693274-49-6P 693274-50-9P 693274-51-0P 693274-52-1P  
 693287-19-3P 693287-22-8P 693287-25-1P

(manufacture of cellulose acylate films with good storage stability and low dependence of retardation on temperature and moisture for optical films, polarizers, and photog. films)

L9 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:351517 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:383173  
 TITLE: Cellulose acylate films, their manufacture, and optical films, liquid crystal displays, and photographic materials employing the same  
 INVENTOR(S): Kato, Eiichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004130674	A	20040430	JP 2002-297744	20021010
			<--	
PRIORITY APPLN. INFO.:			JP 2002-297744	20021010
			<--	

ED Entered STN: 30 Apr 2004

AB Cellulose acylate dopes containing macromol. photopolymn. initiators TL[CHA1CA2(V1R)] [T = SC:SNR11R12, SC:S0R13 (R11, R12 = H, hydrocarbyl; R13 = hydrocarbyl); L = bivalent bridging group; A1, A2 = H, halo, cyano, alkyl, CH2CO2Q2 (Q2 = alkyl); V1 = CO2, OCO, CH2OCO, etc.; R = aliphatic or aromatic group] and radical monomers are cast on supports and exposed to light to form films with high tear strength and excellent transparency for the title mentioned uses. Monomers having light-stabilized groups may be incorporated in the said monomers. The films for photog. film supports have thickness 30-250  $\mu$ m.

IT 684282-38-0P

(manufacture of cellulose acylate films having excellent tear strength and transparency for optical, photog., and display uses)

RN 684282-38-0 HCAPLUS

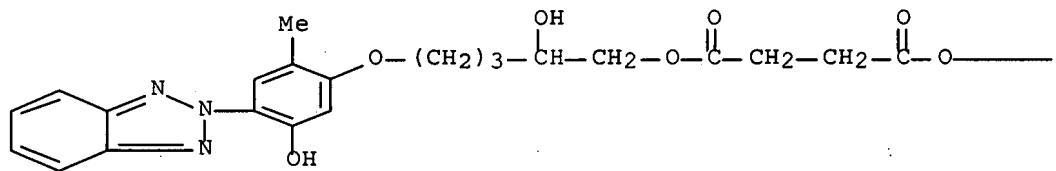
CN Butanedioic acid, 5-[4-(2H-benzotriazol-2-yl)-5-hydroxy-2-methylphenoxy]-2-hydroxypentyl 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with cyclohexyl 2-propenoate, 1-[(decahydro-1,4:5,8-dimethanonaphthalen-2-yl)oxy]ethyl 2-methyl-2-propenoate, 3-[(1-ethyl-2,2,6,6-tetramethyl-4-piperidinyl)oxy]-2-hydroxypropyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

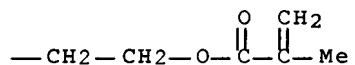
CRN 684282-22-2

CMF C28 H33 N3 O9

PAGE 1-A

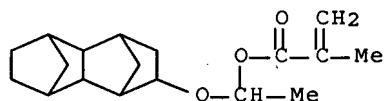


PAGE 1-B



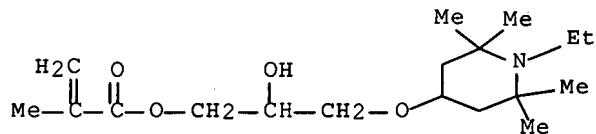
CM 2

CRN 658060-19-6  
 CMF C18 H26 O3



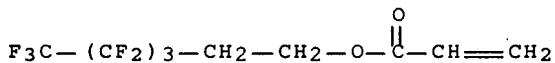
CM 3

CRN 658059-88-2  
 CMF C18 H33 N O4

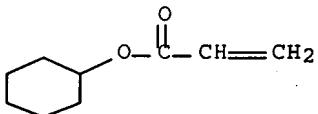


CM 4

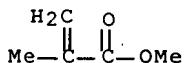
CRN 52591-27-2  
 CMF C9 H7 F9 O2



CM 5

CRN 3066-71-5  
CMF C9 H14 O2

CM 6

CRN 80-62-6  
CMF C5 H8 O2

IC ICM B29C041-28  
 ICS B29C041-50; C08F002-44; C08F002-50; C08F251-02; C08J005-18;  
 G02B005-30; G03C001-795; B29K001-00; B29L007-00; C08L001-12  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38, 73  
 IT 80-62-6DP, Methyl methacrylate, block polymers with light-stabilized  
 monomers and macromol. initiators 96-33-3DP, Methyl acrylate, block  
 polymers with light-stabilized monomers 101-43-9DP, Cyclohexyl  
 methacrylate, block polymers with light-stabilized monomers  
 142-09-6DP, Hexyl methacrylate, block polymers with light-stabilized  
 monomers and macromol. initiators 110506-07-5DP,  
 4-Trifluoromethylphenyl methacrylate, block polymers with  
 light-stabilized monomers and macromol. initiators 111404-23-0DP,  
 block polymers with light-stabilized monomers 121601-93-2DP,  
 1-Adamantyl acrylate, block polymers with light-stabilized monomers  
 and macromol. initiators 134291-01-3P, Cyclohexyl  
 methacrylate-methyl methacrylate block copolymer 684282-17-5P  
 684282-18-6P 684282-19-7P 684282-20-0P 684282-21-1P, Cyclohexyl  
 methacrylate-vinyl acetate-styrene block copolymer 684282-23-3P  
 684282-24-4P 684282-25-5P 684282-26-6P 684282-27-7P  
 684282-28-8P 684282-29-9P 684282-30-2P 684282-31-3P  
 684282-32-4P 684282-33-5P 684282-34-6P 684282-35-7P  
 684282-36-8P 684282-37-9P 684282-38-0P 684282-39-1P  
 (manufacture of cellulose acylate films having excellent tear strength

and transparency for optical, photog., and display uses)

L9 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:271645 HCAPLUS Full-text

DOCUMENT NUMBER: 140:294934

TITLE: Cellulose acylate composite films, their manufacture, and their uses in optical films, liquid crystal displays, and photographic materials

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004099775	A	20040402	JP 2002-264588	20020910
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PRIORITY APPLN. INFO.:			JP 2002-264588	20020910
<--				

ED Entered STN: 02 Apr 2004

AB The films are manufactured by casting cellulose acylate compns. containing radically-polymerizable monomers, cationically-polymerizable monomers, and photopolymn. initiators and irradiating the compns. with electron beam (sic). Also claimed are optical films and liquid crystal displays using the films and Ag halide photog. materials using the films with thickness 30-250  $\mu\text{m}$  as supports. The films show low haze, high tear strength, good weatherability, and neither contamination with foreign substances nor stains. A polarizer film prepared by laminating both sides of an iodine-adsorbed PVA-based polarizer with a pair of the composite cellulose triacetate films shows high durability.

IT 658060-20-9P

(manufacture of cellulose acylate films for LCD, photog. materials, etc., from dopes containing radically-polymerizable monomers, cationically-polymerizable monomers, and photoinitiators)

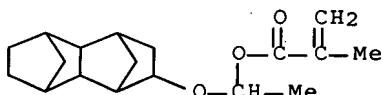
RN 658060-20-9 HCAPLUS

CN Butanedioic acid, 5-[4-(5-chloro-2H-benzotriazol-2-yl)-5-hydroxy-2-methylphenoxy]-2-hydroxypentyl 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1-[(decahydro-1,4:5,8-dimethanonaphthalen-2-yl)oxy]ethyl 2-methyl-2-propenoate and 3-[(1-ethyl-2,2,6,6-tetramethyl-4-piperidinyl)oxy]-2-hydroxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

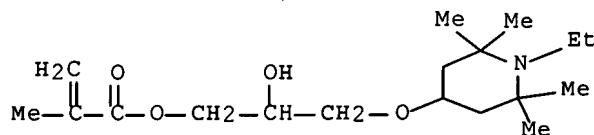
CM 1

CRN 658060-19-6

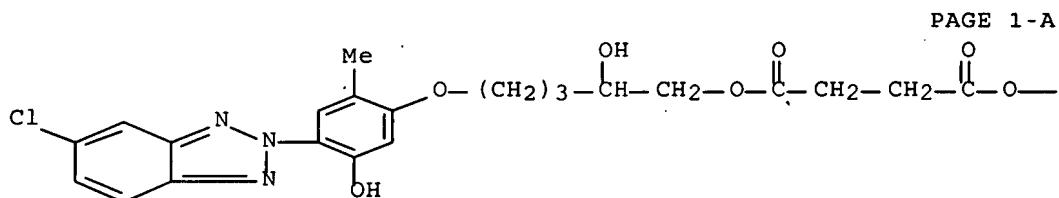
CMF C18 H26 O3



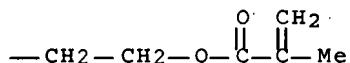
CM 2

CRN 658059-88-2  
CMF C18 H33 N 04

CM 3

CRN 658059-87-1  
CMF C28 H32 Cl N3 O9

PAGE 1-B



IC ICM C08G085-00  
ICS B29C041-24; C08J005-18; C08L001-10; C08L101-00; G03C001-795;  
B29K001-00; B29L007-00

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38, 43, 73

IT 9011-14-7P, Methyl methacrylate homopolymer 25085-98-7P  
26283-70-5P, Hydrogenated bisphenol A diglycidyl ether homopolymer  
99732-63-5P 658059-80-4P 658059-82-6P 658059-84-8P  
658059-86-0P 658060-14-1P 658060-20-9P 658060-24-3P  
658060-26-5P 658063-14-0P 676265-21-7P 676265-23-9P  
676265-25-1P 676265-27-3P 676265-28-4P 676265-29-5P  
676265-31-9P 676265-33-1P 676265-34-2P 676265-38-6P  
676265-41-1P 676265-43-3P 676265-45-5P 676265-48-8P  
676265-49-9P 676265-51-3P 676266-16-3P 676266-18-5P

(manufacture of cellulose acylate films for LCD, photog. materials, etc., from dopes containing radically-polymerizable monomers, cationically-polymerizable monomers, and photoinitiators)

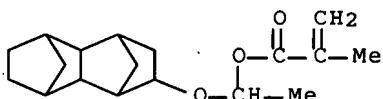
L9 ANSWER 14 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:180035 HCPLUS Full-text  
 DOCUMENT NUMBER: 140:243664  
 TITLE: Cellulose acylate films with excellent transparency, tear strength, and weather resistance, their manufacture, and optical films, liquid crystal displays, and silver halide photographic materials using them  
 INVENTOR(S): Kato, Eiichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004067816	A	20040304	JP 2002-227579	20020805
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PRIORITY APPLN. INFO.:			JP 2002-227579	20020805
<--				<--

ED Entered STN: 05 Mar 2004  
 AB The films are manufactured by casting cellulose acylate compns. containing polymerizable monomers, photothermal converting agents, and thermal polymerization initiators and irradiating them with IR.  
 IT 666837-50-9P  
 (manufacture of cellulose acylate cast films with good transparency, tear strength, and weather resistance for optical use)  
 RN 666837-50-9 HCPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1-[(decahydro-1,4:5,8-dimethanonaphthalen-2-yl)oxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 658060-19-6  
 CMF C18 H26 O3



IC ICM C08J005-18  
 ICS B29C041-28; B29C041-50; C08F002-44; C08F251-02; G02B005-30;  
 G02F001-1335; G03C001-795; B29K001-00; B29L007-00; C08L001-10  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38, 73  
 IT 2495-35-4DP, polymers 9011-14-7P, Methyl methacrylate polymer  
 16868-15-8DP, polymers 40756-50-1P 59620-20-1DP, polymers

72355-89-6P 99732-63-5P 119347-00-1DP, polymers 128611-70-1DP,  
 polymers 151543-64-5P, Poly(1,4-cyclohexanedimethanol divinyl ether)  
 658059-80-4P 658059-82-6P 658059-84-8P 658059-86-0P  
 658059-89-3P 658059-91-7P 658059-97-3P 658060-00-5P  
 658060-03-8P 658060-06-1P 658060-09-4P 658060-36-7P  
 658060-38-9DP, polymers 666837-41-8P 666837-45-2P 666837-46-3P  
 666837-47-4P 666837-48-5P 666837-49-6P 666837-50-9P  
 666837-51-0P 666837-52-1P 666837-53-2P 666837-56-5DP, reaction  
 products with monoepoxide 666837-57-6DP, reaction products with  
 epoxy resin 666841-65-2P 666841-66-3P  
 (manufacture of cellulose acylate cast films with good transparency,  
 tear strength, and weather resistance for optical use)

L9 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:117562 HCAPLUS Full-text

DOCUMENT NUMBER: 140:189907

TITLE: Cellulose acylate films, their manufacture,  
 optical films, liquid-crystal displays, and silver  
 halide photographic materials

INVENTOR(S): Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004042381	A	20040212	JP 2002-201749	20020710
			<--	
PRIORITY APPLN. INFO.:			JP 2002-201749	20020710
			<--	

OTHER SOURCE(S): MARPAT 140:189907

ED Entered STN: 13 Feb 2004

AB The films are manufactured by (1) applying cellulose acylate compns.  
 containing polymerizable monomers, photopolymn. initiators, and spectral  
 sensitizers Ar1R3C:CR2C(:X)R1 [R1-R3 = H, monovalent nonmetal atomic group;  
 R1-R3 may form acidic nucleus of dyes; Ar1 = aryl group having OR4, NR5,  
 and/or SR6 at o- or p-position; X = O, S, :NR7; R4-R7 = (un)substituted alkyl  
 or aryl] and (2) irradiating with UV light. The photog. materials have  
 supports of the films with thickness 30-250  $\mu$ m. The films show high bending  
 and tear strength and good storage stability.

IT 658060-20-9P  
 (manufacture of cellulose acylate films with high tear strength for LCD  
 and photog. materials)

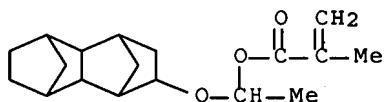
RN 658060-20-9 HCAPLUS

CN Butanedioic acid, 5-[4-(5-chloro-2H-benzotriazol-2-yl)-5-hydroxy-2-  
 methylphenoxy]-2-hydroxypentyl 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl  
 ester, polymer with 1-[(decahydro-1,4:5,8-dimethanonaphthalen-2-  
 yl)oxylethyl 2-methyl-2-propenoate and 3-[(1-ethyl-2,2,6,6-tetramethyl-  
 4-piperidinyl)oxy]-2-hydroxypropyl 2-methyl-2-propenoate (9CI) (CA  
 INDEX NAME)

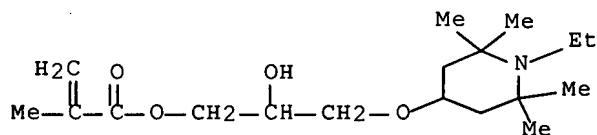
CM 1

CRN 658060-19-6

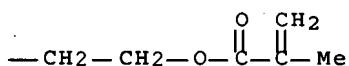
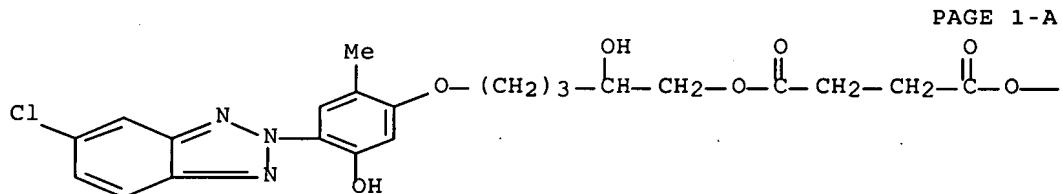
CMF C18 H26 O3



CM 2

CRN 658059-88-2  
CMF C18 H33 N 04

CM 3

CRN 658059-87-1  
CMF C28 H32 Cl N3 O9

IC ICM B29C041-24  
ICS B29C041-50; C08F002-44; C08F002-50; C08F251-02; C08J005-18;  
G02B005-30; G02F001-1335; B29K001-00; B29L007-00; C08L001-10  
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reproductive Processes)  
Section cross-reference(s): 38, 73  
IT 9011-14-7P, Methyl methacrylate homopolymer 99732-63-5P  
658059-80-4P 658059-82-6P 658059-84-8P 658059-85-9P

658059-86-0P 658059-89-3P 658059-91-7P 658059-94-0P  
 658059-97-3P 658060-00-5P 658060-03-8P 658060-06-1P  
 658060-09-4P 658060-11-8P 658060-13-0P 658060-14-1P  
 658060-16-3P 658060-18-5P 658060-20-9P 658060-21-0P  
 658060-23-2P 658060-24-3P 658060-26-5P 658060-30-1P  
 658060-33-4P 658060-36-7P 658060-40-3P 658060-43-6P  
 658063-12-8P 658063-14-0P

(manufacture of cellulose acylate films with high tear strength for LCD and photog. materials)

L9 ANSWER 16 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:585195 HCPLUS Full-text

DOCUMENT NUMBER: 139:133273

TITLE: Preparation of (meth)acryloyl-containing adamantanone derivatives

INVENTOR(S): Anzai, Ryuichi; Kikuchi, Katsuaki

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003212823	A	20030730	JP 2002-10155	20020118

PRIORITY APPLN. INFO.:	DATE
JP 2002-10155	20020118

OTHER SOURCE(S): MARPAT 139:133273

ED Entered STN: 30 Jul 2003

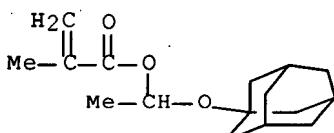
AB CH:CR1CO2CHMeO(CH2)nR2 [I; R1 = H, Me; R2 = (un)substituted adamantyl, adamantanonyl (sic); n = 0-4], useful as materials for drugs, agrochems., polymers, etc., are prepared by treating CH:CR1CO2CH:CH2 (R1 = same as above) with R2(CH2)nOH (R2 = same as above), preferably in the presence of acid catalysts. Alternatively I are prepared by treating CH:CR1CO2H with R2(CH2)nOH:CH2. A mixture of 1-adamantanone, vinyl acrylate, and Bi(OSO2CF3)3·4H2O was heated at 40° for 8 h to give 53% I (R1 = H, R2 = 1-adamantyl, n = 0).

IT 279218-82-5P 569329-57-3P 569329-58-4P  
 569329-60-8P 569329-61-9P 569329-62-0P  
 569329-64-2P 569329-66-4P

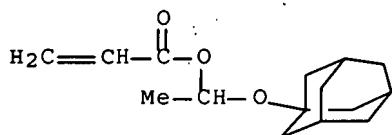
(preparation of (meth)acryloyl-containing adamantanone derivs. from vinyl (meth)acrylate and adamantyl alcs. or from (meth)acrylic acid and adamantyl alcs.)

RN 279218-82-5 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(tricyclo[3.3.1.13,7]dec-1-yloxy)ethyl ester (9CI) (CA INDEX NAME)

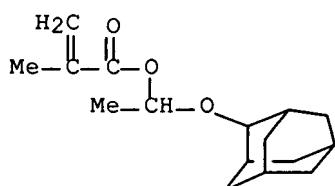


RN 569329-57-3 HCAPLUS

CN 2-Propenoic acid, 1-(tricyclo[3.3.1.13,7]dec-1-yloxy)ethyl ester (9CI)  
(CA INDEX NAME)

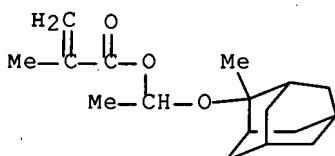
RN 569329-58-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(tricyclo[3.3.1.13,7]dec-2-yloxy)ethyl ester (9CI) (CA INDEX NAME)



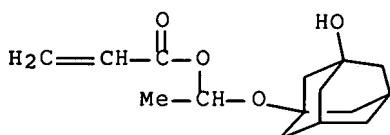
RN 569329-60-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(2-methyltricyclo[3.3.1.13,7]dec-2-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



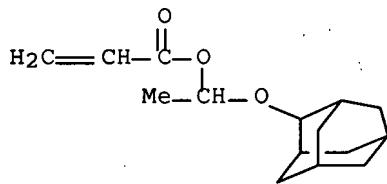
RN 569329-61-9 HCAPLUS

CN 2-Propenoic acid, 1-[(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



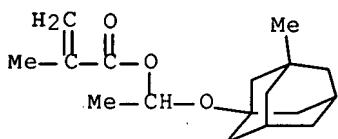
RN 569329-62-0 HCAPLUS

CN 2-Propenoic acid, 1-(tricyclo[3.3.1.13,7]dec-2-yloxy)ethyl ester (9CI)  
(CA INDEX NAME)



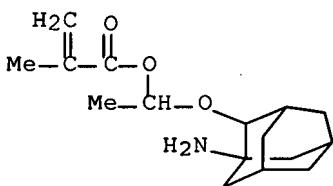
RN 569329-64-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(3-methyltricyclo[3.3.1.13,7]dec-1-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



RN 569329-66-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(1-aminotricyclo[3.3.1.13,7]dec-2-yl)oxy]ethyl ester (9CI) (CA INDEX NAME)



IC ICM C07C067-04

ICS C07C067-29; C07C069-54; C07C213-08; C07C217-52; C07B061-00

CC 24-8 (Alicyclic Compounds)

Section cross-reference(s): 35

IT 279218-82-5P 569329-57-3P 569329-58-4P

569329-59-5P 569329-60-8P 569329-61-9P

569329-62-0P 569329-64-2P 569329-66-4P

(preparation of (meth)acryloyl-containing adamantane derivs. from vinyl (meth)acrylate and adamantyl alcs. or from (meth)acrylic acid and adamantyl alcs.)

L9 ANSWER 17 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:257923 HCPLUS Full-text

DOCUMENT NUMBER: 138:273081

TITLE: Carboxyl-blocked polyfumarates, their preparation, their coatings, and their uses as electronic

INVENTOR(S): encapsulants  
 Okuo, Masaki; Sonoda, Kensaku; Sato, Hiroshi  
 PATENT ASSIGNEE(S): NOF Corporation, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003096137	A	20030403	JP 2001-292850	20010926
				<--
PRIORITY APPLN. INFO.:			JP 2001-292850	20010926
				<--

ED Entered STN: 03 Apr 2003

AB Fumarate diesters CH<sub>2</sub>(CO<sub>2</sub>X<sub>1</sub>)CHCO<sub>2</sub>X<sub>2</sub> (X<sub>1</sub>, X<sub>2</sub> = C<sub>3</sub>-8 alkyl, C<sub>4</sub>-8 cycloalkyl) are radically polymerized with (M1) CH<sub>2</sub>(CO<sub>2</sub>A<sub>1</sub>)CHCO<sub>2</sub>A<sub>2</sub> [A<sub>1</sub>, A<sub>2</sub> = same definition as X<sub>1</sub> and X<sub>2</sub>, where one or both of them are CR<sub>1</sub>(CHR<sub>2</sub>R<sub>3</sub>)Y<sub>1</sub>R<sub>4</sub> (R<sub>1</sub>-R<sub>3</sub> = H, C<sub>1</sub>-18 organic group; R<sub>4</sub> = C<sub>1</sub>-18 organic group; Y<sub>1</sub> = O, S) or Q (R<sub>5</sub>, R<sub>6</sub> = H, C<sub>1</sub>-18 organic group; R<sub>7</sub>, R<sub>8</sub> = bivalent C<sub>1</sub>-18 organic group; Y<sub>2</sub> = O, S)], (M2) CH<sub>2</sub>:C(CH<sub>2</sub>CO<sub>2</sub>B<sub>1</sub>)(CO<sub>2</sub>B<sub>2</sub>) [B<sub>1</sub>, B<sub>2</sub> = C<sub>3</sub>-8 alkyl, C<sub>4</sub>-8 cycloalkyl, where one or both of them are Q (aforesaid)], and/or (M3) CH<sub>2</sub>:CED<sub>n</sub>CO<sub>2</sub>Z<sub>1</sub> [Z<sub>1</sub> = Q (aforesaid); D = benzyl; n = 0, 1; E = H, Me] to form the title mentioned polyfumarates satisfying Mn 1000-300,000 and acid value, when the carboxyl groups are unblocked, 50-250 mg-KOH/g. Also claimed are coatings containing (A) the polyfumarates, (B) their latent crosslinking agents, (C) latent acid catalysts, and (D) self-crosslinkable polymers which have M<sub>2</sub> (aforesaid)-derived units and substituted ethylene units containing carboxyl-reactive functional groups, preferably in weight ratio of A/B/C/D 100:(5-2000):(0.01-15):(5-500). Cured films of the coatings, satisfying Knoop hardness 8-12, are further claimed. Thus, a clear coating containing 100 parts dicyclohexyl fumarate-di-sec-Bu fumarate-bis(2-isobutyloxyethyl) fumarate copolymer (acid value of unblocked form 51 mg-KOH/g, Mw 35,000) and 15.5 parts Denacol EX 421 (epoxy resin) was applied on a pretreated steel sheet and baked at 140° to give a specimen showing excellent resistance to impact, acid, and accelerated weathering test and Knoop microhardness 10.2.

IT 503269-35-0P

(storage-stable coatings of polyfumarates having latent carboxyl groups suited for electronic encapsulants)

RN 503269-35-0 HCAPLUS

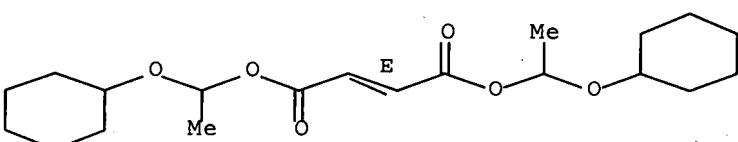
CN 2-Butenedioic acid (2E)-, bis[1-(cyclohexyloxy)ethyl] ester, polymer with bis(1-methylethyl) (2E)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 503269-34-9

CMF C20 H32 O6

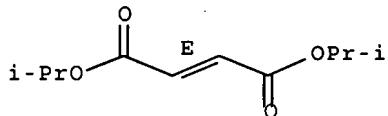
Double bond geometry as shown.



CM 2

CRN 7283-70-7  
CMF C10 H16 O4

Double bond geometry as shown.



IC ICM C08F222-14  
 ICS C08G085-00; H01L023-29; H01L023-31  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 37, 38, 76  
 IT 503269-33-8P 503269-35-0P 503269-37-2P 503269-39-4P  
 503269-41-8P 503269-43-0P 503269-44-1P  
 (storage-stable coatings of polyfumarates having latent carboxyl groups suited for electronic encapsulants)

L9 ANSWER 18 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003:132379 HCPLUS Full-text  
 DOCUMENT NUMBER: 138:154784  
 TITLE: Sheet-forming actinic energy ray-curable resins for optical instruments  
 INVENTOR(S): Sauchi, Yasuyuki; Igarashi, Ichiro; Matsuda, Yutaka; Tanaka, Junji  
 PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan; Sumitomo Bakelite Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003048922	A	20030221	JP 2001-237635	20010806
<--				
PRIORITY APPLN. INFO.:			JP 2001-237635	20010806
<--				

ED Entered STN: 21 Feb 2003  
 AB The resins for forming heat-resistant, transparent sheets, contain (A) alkoxylated bis(hydroxyphenyl)fluorene di(meth)acrylates and optionally (B) photopolymn. initiators and (C) thermal polymerization initiators. Thus, a 99:1 bisphenoxyethanol fluorene diacrylate-1-hydroxycyclohexyl Ph ketone mixture was cast on a framed glass plate and exposed to UV to give a 0.4-mm thick sheet showing color difference (JIS K 5400, after 1 h at 210°) ΔE 8.6 and ΔY 12.5, Tg 167°, and water absorption 0.8% after 20 h in 80°-water.  
 IT 496046-49-2P  
 (actinic energy ray-curable resins for heat-resistant transparent optical sheets)

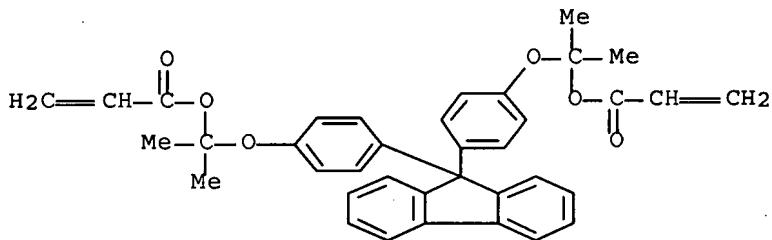
RN 496046-49-2 HCAPLUS

CN 2-Propenoic acid, 9H-fluoren-9-ylidenebis[4,1-phenyleneoxy(1-methylethylidene)] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 496046-48-1

CMF C37 H34 O6



IC ICM C08F020-30

ICS C08F290-06; G02B001-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 73

IT 246858-42-4P 496046-49-2P

(actinic energy ray-curable resins for heat-resistant transparent optical sheets)

L9 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:444554 HCAPLUS Full-text

DOCUMENT NUMBER: 135:45937

TITLE: Preparation of alkoxyethyl ester dendrimers for photoresists

INVENTOR(S): Sadayori, Naoki; Mochizuki, Makoto; Yoshioka, Masahiro

PATENT ASSIGNEE(S): Nitto Denko Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001163971	A	20010619	JP 1999-352920	19991213

PRIORITY APPLN. INFO.:	JP 1999-352920	19991213
	<--	

OTHER SOURCE(S): CASREACT 135:45937; MARPAT 135:45937

ED Entered STN: 20 Jun 2001

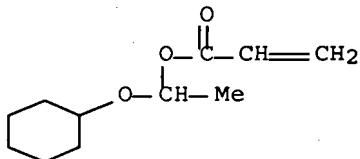
AB The dendrimers  $[R_2N(CH_2)_3]_2N(CH_2)_4N[(CH_2)_3NR_2]_2$  [R =  $R_2OCHR_1OCOCH_2CH_2$ ; R<sub>1</sub>, R<sub>2</sub> = C<sub>1-6</sub> alkyl, C<sub>3-8</sub> alicyclic alkyl; R<sub>1</sub>R<sub>2</sub> may form ring] are prepared by reaction of  $[H_2N(CH_2)_3]_2N(CH_2)_4N[(CH_2)_3NH_2]_2$  with  $R_2OCHR_1OCOCH:CH_2$  (R<sub>1</sub>, R<sub>2</sub> = same as above) in the presence of catalysts in solvents. $[H_2N(CH_2)_3]_2N(CH_2)_4N[(CH_2)_3NH_2]_2$  was reacted with 1-ethoxyethyl acrylate at 40° for 18 h to give 93% dendrimer.

IT 153206-78-1

(preparation of alkoxyethyl ester dendrimers by addition acrylates with polypropyleneimine dendrimers)

RN 153206-78-1 HCPLUS

CN 2-Propenoic acid, 1-(cyclohexyloxy)ethyl ester (9CI) (CA INDEX NAME)



IC ICM C08G073-02

ICS C07C227-10; C07C229-16

CC 23-17 (Aliphatic Compounds)

Section cross-reference(s): 74

IT 52351-91-4, 1-Ethoxyethyl acrylate 52858-57-8, 2-Tetrahydropyranyl acrylate 120239-63-6 148740-50-5 153206-78-1  
344744-36-1

(preparation of alkoxyethyl ester dendrimers by addition acrylates with polypropyleneimine dendrimers)

L9 ANSWER 20 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:454439 HCPLUS Full-text

DOCUMENT NUMBER: 133:96789

TITLE: Positive-working photoresist composition for far UV ray exposure

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

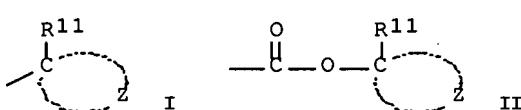
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000187327	A	20000704	JP 1998-327056	19981117 <--
PRIORITY APPLN. INFO.:			JP 1998-293986	A 19981015 <--

ED Entered STN: 06 Jul 2000

GI



AB The title photoresist composition contains (a) a compound which generates an acid by irradiation with activated ray or radiation and (b) a resin which contains alkali-soluble groups protected with  $\geq 1$  of acid-cleaving alicyclic hydrocarbon-containing partial structures I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group with the C atom; R12-16 = C1-4 alkyl, alicyclic hydrocarbon;  $\geq 1$  of R12-14, or R15 or R16 are alicyclic hydrocarbons; R17-21 = straight-chain or branched alkyl or alicyclic hydrocarbon,  $\geq 1$  of R17-21 is an alicyclic hydrocarbon, R19 or R21 is a C1-4 alkyl or alicyclic hydrocarbon; R22-25 = C1-4 alkyl or alicyclic hydrocarbon,  $\geq 1$  of R22-25 is an alicyclic hydrocarbon), and (c) a low-mol.-weight compound having hydrophilic functional and cyclic hydrocarbon groups or a naphthalene compound having hydrophilic functional groups. The composition shows improved developability and high sensitivity toward far UV rays including excimer laser beams and give ultra-fine patterns.

IT 279218-83-6P

(pos.-working photoresist composition for far UV ray exposure)

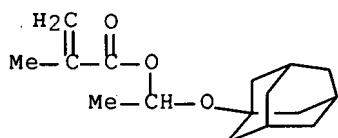
RN 279218-83-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl ester, polymer with 1-(tricyclo[3.3.1.13,7]dec-1-yloxy)ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 279218-82-5

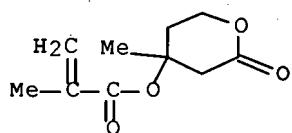
CMF C16 H24 O3



CM 2

CRN 177080-66-9

CMF C10 H14 O4



IC ICM G03F007-039

ICS G03F007-20; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 83-56-7P, 1,5-Dihydroxynaphthalene 86-55-5P, 1-Naphthalenecarboxylic

acid 90-15-3P, 1-Naphthol 92-70-6P, 3-Hydroxy-2-naphthalenecarboxylic acid 571-60-8P, 1,4-Dihydroxynaphthalene 581-96-4P, 2-Naphthylacetic acid 828-51-3P, 1-Adamantane carboxylic acid 7432-73-7P 177080-68-1P 181531-13-5P, 2-Methyladamantyl methacrylate-3-oxocyclohexyl methacrylate copolymer 244088-20-8P 279218-77-8P 279218-83-6P 280123-19-5P 280123-22-0P  
(pos.-working photoresist composition for far UV ray exposure)

L9 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:440245 HCAPLUS Full-text

DOCUMENT NUMBER: 133:81565

TITLE: Positive-working photoresist composition for far UV ray exposure

INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiko

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

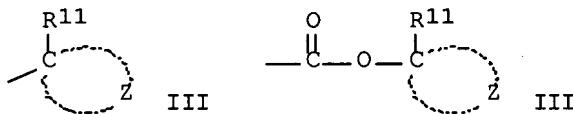
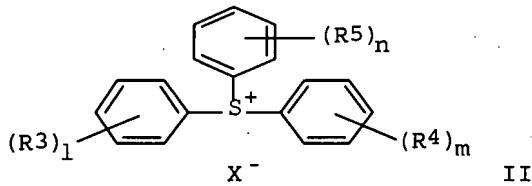
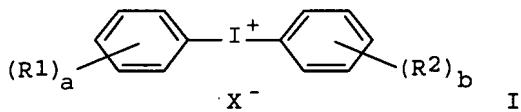
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000181054	A	20000630	JP 1998-327055	19981117
JP 3476374	B2	20031210	<--	
PRIORITY APPLN. INFO.:			JP 1998-288108	A 19981009

OTHER SOURCE(S): MARPAT 133:81565

ED Entered STN: 30 Jun 2000

GI



AB The title photoresist composition contains (a) a compound I or II [R1-5 = H, alkyl, cycloalkyl, alkoxy, alkoxy carbonyl, acyl, acyloxy (which may be

substituted), NO<sub>2</sub>, halo, OH, CO<sub>2</sub>H,  $\geq 1$  of R1 and R2 is a C $\geq 5$  alkyl, cycloalkyl, alkoxy, alkoxy carbonyl, acyl or acyloxy group (substituted); a, b, l = 1-5; m, n = 0-5, when l + m + n = 1, R3 is an alkyl, cycloalkyl, alkoxy, alkoxy carbonyl, acyl or acyloxy group (substituted); X = RSO<sub>2</sub> (R = aliphatic or aromatic hydrocarbon which may be substituted)] which generates a sulfonic acid by irradiation with activating ray or radiation and (b) a resin which contains alkali-soluble groups protected with  $\geq 1$  of alicyclic hydrocarbon-containing partial structures III, CR12R13R14, CH(OR<sub>15</sub>)R<sub>16</sub>, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and IV [(R<sub>11</sub> = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom); R<sub>12-16</sub> = C<sub>1-4</sub> straight-chain or branched alkyl or alicyclic hydrocarbon,  $\geq 1$  of R<sub>12-16</sub> and either R<sub>15</sub> or R<sub>16</sub> are alicyclic hydrocarbons; R<sub>17-21</sub> = H, C<sub>1-4</sub> straight-chain or branched alkyl or alicyclic hydrocarbon,  $\geq 1$  of R<sub>17-21</sub> is an alicyclic is a C<sub>1-4</sub> straight-chain or branched alkyl or alicyclic hydrocarbon; R<sub>22-25</sub> = C<sub>1-4</sub> straight-chain or branched alkyl or alicyclic hydrocarbon,  $\geq 1$  of R<sub>22-25</sub> is an alicyclic hydrocarbon] and is cleaved by the action of acid to increase the solubility to alkali. The solution of the composition in organic solvents shows improved storage stability and the composition exhibits high sensitivity toward far UV rays, especially ArF excimer laser beam.

IT 279218-83-6P

(pos.-working photoresist composition for far UV ray exposure)

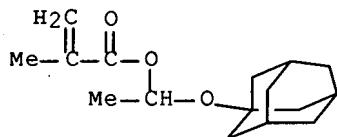
RN 279218-83-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl ester, polymer with 1-(tricyclo[3.3.1.13,7]dec-1-yloxy)ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 279218-82-5

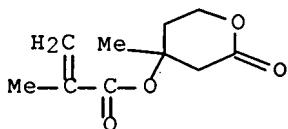
CMF C16 H24 O3



CM 2

CRN 177080-66-9

CMF C10 H14 O4



IC ICM G03F007-004  
 ICS G03F007-039; H01L021-027  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 177080-68-1P 181531-13-5P, 3-Oxocyclohexyl methacrylate-2-methyladamantyl methacrylate copolymer 279218-77-8P 279218-79-0P 279218-81-4P 279218-83-6P  
 (pos.-working photoresist composition for far UV ray exposure)

L9 ANSWER 22 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:784819 HCPLUS Full-text  
 DOCUMENT NUMBER: 132:108372  
 TITLE: Thermal dissociation behavior of polymers with hemiacetal ester moieties in the side chain: the effect of structure on dissociation temperature  
 AUTHOR(S): Otsuka, Hideyuki; Fujiwara, Hirotada; Endo, Takeshi  
 CORPORATE SOURCE: Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Yokohama, 226-8503, Japan  
 SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1999), 37(24), 4478-4482  
 CODEN: JPACEC; ISSN: 0887-624X  
 PUBLISHER: John Wiley & Sons, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

ED Entered STN: 12 Dec 1999

AB Polymers with hemiacetal ester structures in the side chain were prepared by radical polymerization of 1-alkoxypropyl and 1-alkoxyethyl methacrylates which in turn were prepared from the corresponding ethers and methacrylic acid in the presence of an acid catalyst. The radical polymerization was carried out using AIBN as initiator in chlorobenzene at 60° for 20 h. The thermal properties of the polymers were measured by thermogravimetry (TG) and DTA. Data indicate that thermal dissociation reactions of the hemiacetal ester moieties proceed via concerted mechanisms and are dependent on the mol. structure. Thus, thermally reactive polymers can be designed based on hemiacetal ester moieties.

IT 255716-78-0P

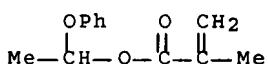
(thermal dissociation of hemiacetal ester side chain moieties in polymethacrylates prepared by radical polymerization of alkoxyalkyl ether methacrylates)

RN 255716-78-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-phenoxyethyl ester, homopolymer (9CI)  
 (CA INDEX NAME)

CM 1

CRN 255716-77-9  
 CMF C12 H14 O3



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

IT 138532-29-3P 140715-21-5P 143556-57-4P 215591-30-3P

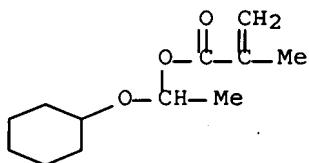
255716-73-5P 255716-75-7P 255716-76-8P 255716-78-0P

255724-09-5P

(thermal dissociation of hemiacetal ester side chain moieties in polymethacrylates prepared by radical polymerization of alkoxyalkyl ether methacrylates)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 23 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1998:474170 HCPLUS Full-text  
 DOCUMENT NUMBER: 129:231038  
 TITLE: Hemiacetal esterification of methacrylic acid  
 AUTHOR(S): Nakane, Yoshinori; Ishidoya, Masahiro; Endo, Takeshi  
 CORPORATE SOURCE: Coat. Res. Lab., NOF Corp., Yokohama, 244-0815, Japan  
 SOURCE: Nippon Setchaku Gakkaishi (1998), 34(7), 246-250  
 CODEN: NSEGE7; ISSN: 0916-4812  
 PUBLISHER: Nippon Setchaku Gakkai  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 ED Entered STN: 30 Jul 1998  
 AB Hemiacetal esterification of methacrylic acid with alkyl vinyl ethers was carried out in order to prepare polymerizable monomers having protected carboxyl group. The esterification proceeded selectively in the presence of phosphoric acid without cationic polymerization of vinyl ethers and it was followed to the 2nd order. The reactivity of alkyl vinyl ethers followed to the order of: tert-Bu > cyclohexyl > iso-Pr > Et > Bu.  
 IT 143556-62-1P, 1-Cyclohexyloxyethyl methacrylate  
 (hemiacetal esterification of methacrylic acid by alkyl vinyl ethers)  
 RN 143556-62-1 HCPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester (9CI) (CA INDEX NAME)



CC 35-2 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 23  
 IT 51920-52-6P, 1-Ethoxyethyl methacrylate 85997-75-7P, 1-Butoxyethyl methacrylate 143556-62-1P, 1-Cyclohexyloxyethyl methacrylate  
 212711-20-1P 212711-21-2P  
 (hemiacetal esterification of methacrylic acid by alkyl vinyl ethers)

L9 ANSWER 24 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1998:335156 HCPLUS Full-text  
 DOCUMENT NUMBER: 129:47391

TITLE: Electrophotographic toner and its fixing method  
 INVENTOR(S): Isobe, Kazuya; Kobayashi, Yoshiaki; Soeda, Kaori  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10133422	A	19980522	JP 1996-291592	19961101 <--
JP 3740759	B2	20060201		
US 5817443	A	19981006	US 1997-958307	19971027 <--
PRIORITY APPLN. INFO.:			JP 1996-288029	A 19961030 <--
			JP 1996-291592	A 19961101 <--
			JP 1997-67563	A 19970321 <--

ED Entered STN: 04 Jun 1998

AB The toner [storage modulus = 500-1200 and loss modulus = 1500-3000 dyn/cm<sup>2</sup> (at 160°)] comprises a colorant and a vinyl polymer. THF soluble component of the vinyl polymer has mol. weight peaks at 5000-15,000 and 300,000-400,000 in mol. weight distribution. The fixing method is also claimed, in which toner images obtained by the toner is fixed by a pressure and thermal fixing apparatus. The toner shows high hardness and images with smooth surface are obtained using less amount of oils.

IT 208173-58-4P

(crosslinked; electrophotog. developer toner containing ionomer vinyl polymer)

RN 208173-58-4 HCPLUS

CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with butyl 2-propenoate, 1,2-ethanediylbis[4,1-phenyleneoxy(1-methylethylidene)] bis(2-methyl-2-propenoate), ethenylbenzene and methyl 2-methyl-2-propenoate, zinc salt (9CI) (CA INDEX NAME)

CM 1

CRN 208173-57-3

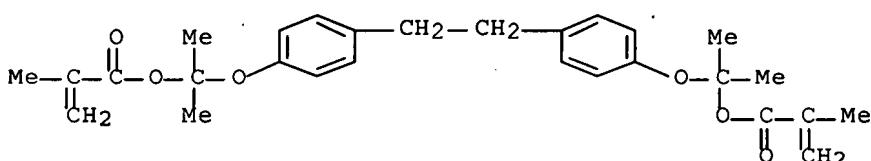
CMF (C28 H34 O6 . C10 H14 O6 . C8 H8 . C7 H12 O2 . C5 H8 O2)x

CCI PMS

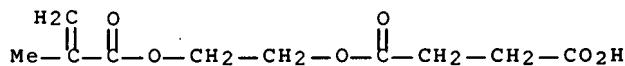
CM 2

CRN 208173-56-2

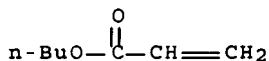
CMF C28 H34 O6



CM 3

CRN 20882-04-6  
CMF C10 H14 O6

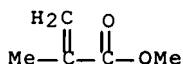
CM 4

CRN 141-32-2  
CMF C7 H12 O2

CM 5

CRN 100-42-5  
CMF C8 H8

CM 6

CRN 80-62-6  
CMF C5 H8 O2

IC ICM G03G009-087  
 ICS G03G009-08; G03G009-09; G03G015-20  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 IT 208173-58-4P

(crosslinked; electrophotog. developer toner containing ionomer vinyl polymer)

L9 ANSWER 25 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:197349 HCPLUS Full-text

DOCUMENT NUMBER: 128:263946

TITLE: Novel polymers and photoresist compositions

INVENTOR(S): Uday, Kumar

PATENT ASSIGNEE(S): Shipley Co., LLC, USA

SOURCE: Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 829766	A2	19980318	EP 1997-115532	19970908 <--
EP 829766	A3	19980701		
EP 829766	B1	20030212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6090526	A	20000718	US 1996-706138	19960913 <--
JP 2000029215	A	20000128	JP 1997-291498	19970916 <--
PRIORITY APPLN. INFO.:			US 1996-706138	A 19960913 <--

ED Entered STN: 06 Apr 1998

AB The present invention provides novel polymers and photoresist compns. that contain such polymers as binder components. The polymers of the invention include repeating units that contain acetalester or ketalester moieties. Preferred photoresists of the invention are chemical-amplified pos.-acting compns. that contain polymers with acetalester or ketalester moieties as binder components that can react to provide solubility differences in the presence of photochem. generated acids.

IT 205367-64-2P 205367-72-2P

(preparation and use in chemical amplified pos. photoresists)

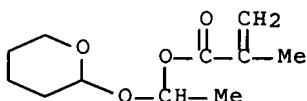
RN 205367-64-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, diphenylmethyl ester, polymer with 4-ethenylphenol and 1-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

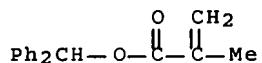
CM 1

CRN 205367-63-1

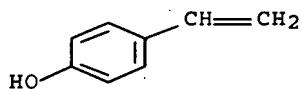
CMF C11 H18 O4



CM 2

CRN 25574-72-5  
CMF C17 H16 O2

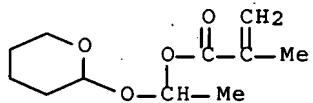
CM 3

CRN 2628-17-3  
CMF C8 H8 O

RN 205367-72-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl ester, polymer with 4-ethenylphenol and exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

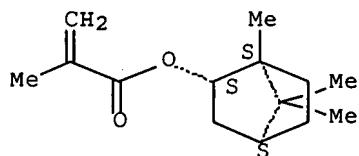
CM 1

CRN 205367-63-1  
CMF C11 H18 O4

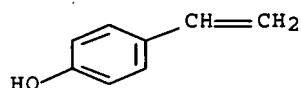
CM 2

CRN 7534-94-3  
CMF C14 H22 O2

Relative stereochemistry.



CM 3

CRN 2628-17-3  
CMF C8 H8 O

IC ICM G03F007-039  
 ICS C08F120-26  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 205367-41-5P, 4-Acetoxy styrene-isobornyl methacrylate-1-propyloxy-1-ethyl methacrylate copolymer 205367-45-9P 205367-49-3P  
 205367-53-9P 205367-56-2P 205367-60-8P 205367-64-2P  
 205367-66-4P 205367-68-6P 205367-72-2P  
 (preparation and use in chemical amplified pos. photoresists)

L9 ANSWER 26 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1997:594565 HCPLUS Full-text  
 DOCUMENT NUMBER: 127:248875  
 TITLE: Polymers and photosensitive resin compositions using the same, and high-resolution heat-resistant pattern formation therefrom by far-UV lithography  
 INVENTOR(S): Iwasa, Shigeyuki; Maeda, Katsumi; Nakano, Kaichiro; Hasegawa, Etsuo  
 PATENT ASSIGNEE(S): NEC Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09221526	A	19970826	JP 1996-309742	19961120
JP 2845225	B2	19990113		
US 5994025	A	19991130	US 1996-763054	19961210
PRIORITY APPLN. INFO.:			JP 1995-322039	A 19951211
			<--	
			JP 1996-309742	A 19961120

&lt;--

ED Entered STN: 17 Sep 1997

AB The title polymers are  $[CH_2C(R_1)(CO_2R_2)]_x[CH_2C(R_3)[CO_2C(R_4)(R_5)(OR_6)]_y[CH_2C(R_7)(CO_2H)]_z$  ( $R_1, R_3, R_7 = H, Me$ ;  $R_2 = C_7-13$  bridged cyclohydrocarbyl;  $R_4 = H, C_1-2$  hydrocarbyl;  $R_5 = C_1-2$  hydrocarbyl;  $R_6 = C_1-12$  hydrocarbyl with or without 1-12 alkoxy or  $C_1-13$  acyl substituent;  $x + y + z = 1$ ;  $x = 0.1-0.9$ ;  $y = 0.1-0.7$ ;  $z = 0-0.7$ ) with  $M_w$  1000-1,000,000 and used with photochem. acid generators for pattern making with light with wavelength 180-220 nm. Fancryl FA-513A, 1-ethoxyethyl methacrylate, and methacrylic acid were copolymd. in 5:3:2 molar ratio and the resulting copolymer was used with N-hydroxysuccinimide toluenesulfonate with line and space resolution 0.20  $\mu m$  at exposure about 30  $mJ/cm^2$ .

IT 195816-08-1P

(acrylic polymers and photosensitive resin compns. using the same, and high-resolution heat-resistant pattern formation therefrom by far-UV lithog.)

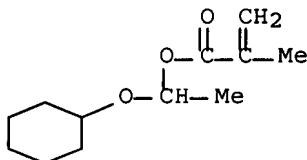
RN 195816-08-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate and octahydro-4,7-methano-1H-inden-5-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

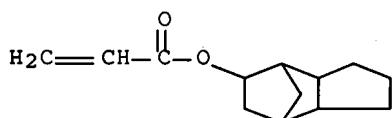
CMF C12 H20 O3



CM 2

CRN 7398-56-3

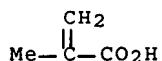
CMF C13 H18 O2



CM 3

CRN 79-41-4

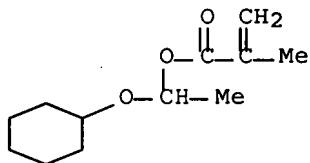
CMF C4 H6 O2



IT 143556-62-1P, 1-Cyclohexyloxyethyl methacrylate  
 (acrylic polymers and photosensitive resin compns. using the same,  
 and high-resolution heat-resistant pattern formation therefrom by  
 far-UV lithog.)

RN 143556-62-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester (9CI) (CA  
 INDEX NAME)



IC ICM C08F220-28  
 ICS C08F220-06; C08F220-18; C09D133-14; G03F007-039; H01L021-027

CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 74, 76

IT 182073-92-3P 182073-93-4P 182073-94-5P 182073-95-6P  
 182073-96-7P 195816-03-6P 195816-05-8P 195816-07-0P  
 195816-08-1P 195816-10-5P 195816-12-7P 195816-14-9P  
 (acrylic polymers and photosensitive resin compns. using the same,  
 and high-resolution heat-resistant pattern formation therefrom by  
 far-UV lithog.)

IT 51920-52-6P, 1-Ethoxyethyl methacrylate 85997-75-7P, 1-Butoxyethyl  
 methacrylate 143556-62-1P, 1-Cyclohexyloxyethyl methacrylate  
 181894-78-0P, 1-(2-Methoxyethoxy)ethyl methacrylate 181894-79-1P  
 181894-80-4P 181894-81-5P 195816-04-7P 195816-06-9P  
 195816-09-2P, 1-(2-Ethoxyethoxy)ethyl methacrylate 195816-11-6P,  
 1-(2-Butoxyethoxy)ethyl methacrylate 195816-13-8P,  
 1-(2-Butyryloxyethoxy)ethyl methacrylate  
 (acrylic polymers and photosensitive resin compns. using the same,  
 and high-resolution heat-resistant pattern formation therefrom by  
 far-UV lithog.)

L9 ANSWER 27 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:476703 HCPLUS Full-text  
 DOCUMENT NUMBER: 125:117552  
 TITLE: Hydrolyzable self-polishing coating composition  
 INVENTOR(S): Matsubara, Yoshiro; Itoh, Masayasu; Ishidoya,  
 Masahiro; Honda, Yoshihiro  
 PATENT ASSIGNEE(S): Nof Corporation, Japan  
 SOURCE: Eur. Pat. Appl., 25 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 714957	A1	19960605	EP 1995-118255	19951120
EP 714957	B1	19980304		<--
R: BE, DE, DK, GB, GR, IT, NL, SE				
JP 08199095	A	19960806	JP 1995-272777	19951020
JP 3396349	B2	20030414		<--
US 5767171	A	19980616	US 1995-560028	19951117
FI 9505588	A	19960522	FI 1995-5588	19951120
FI 108042	B1	20011115		<--
NO 9504675	A	19960522	NO 1995-4675	19951120
NO 309486	B1	20010205		<--
KR 189477	B1	19990601	KR 1995-42169	19951120
CN 1128778	A	19960814	CN 1995-119618	19951121
CN 1058280	B	20001108		<--
PRIORITY APPLN. INFO.:			JP 1994-312675	A 19941121
			<--	

ED Entered STN: 13 Aug 1996

AB A hydrolyzable self-polishing coating composition for use in preventing attachment of organisms to the surface of structures submerged in seawater, which comprises an antifoulant and a copolymer of an organosilyl group-containing monomer and a hemiacetal ester group-containing monomer. Thus, 50 parts Et vinyl ether was treated with 50 parts acrylic acid to give ethoxyethyl acrylate, which (14.417 parts) was radically polymerized with 40.572 parts tributylsilyl acrylate and 45.011 parts Me methacrylate and used to prepare a coating material.

IT 179630-35-4P

(hydrolyzable self-polishing coating materials containing antifouling agents)

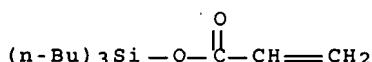
RN 179630-35-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1-(cyclohexyloxy)ethyl 2-propenoate and tributylsilyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 179630-31-0

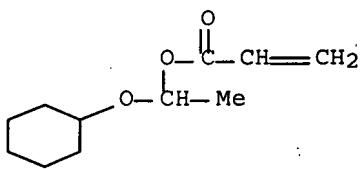
CMF C15 H30 O2 Si



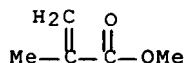
CM 2

CRN 153206-78-1

CMF C11 H18 O3



CM 3

CRN 80-62-6  
CMF C5 H8 O2

IC ICM C09D005-16  
 ICS C09D143-04  
 CC 42-10 (Coatings, Inks, and Related Products)  
 IT 179630-32-1P 179630-34-3P 179630-35-4P 179630-37-6P  
 179630-38-7P 179630-39-8P 179630-40-1P 179630-41-2P  
 179630-44-5P 179630-47-8P  
 (hydrolyzable self-polishing coating materials containing antifouling agents)

L9 ANSWER 28 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:849678 HCPLUS Full-text  
 DOCUMENT NUMBER: 124:179019  
 TITLE: Thermosetting powdered acrylic polymer coating compositions  
 INVENTOR(S): Mashita, Mitsuyuki; Kawashima, Tatsuo  
 PATENT ASSIGNEE(S): Nippon Oils & Fats Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07196951	A	19950801	JP 1993-349084	19931228
JP 3277663	B2	20020422		<--
PRIORITY APPLN. INFO.:			JP 1993-349084	19931228
			<--	

ED Entered STN: 12 Oct 1995  
 AB Coatings with a smooth surface are prepared from vinyl polymers with glass-transition temperature (Tg) 40-150° and weight-average mol. weight (Mw) 2000-50,000 comprising 5-80% CR1R2CR3(CO2CHR4YR5) units (R1-R3 = H, C1-18 organic group; R4 = C1-18 organic group; R5 = C≥5 organic group; or CHR4YR5 may form a

6- or higher-membered heterocyclic group with Y as hetero atom; Y = O, S) and 20-95% other vinyl monomer-derived units. Thus, 169.8:152.1:78.1 1-(cyclohexyloxy)ethyl methacrylate-cyclohexyl methacrylate-Bu methacrylate copolymer (Tg 60°, Mw 11,300) 1000, triglycidyl isocyanurate 198, Tinuvin 900 10, Sanol LS 440 10, Resimix RL 4 5, and benzoin 5 parts were mixed, melt-kneaded, and pulverized to give title powdered composition showing good blocking resistance, which was electrostatically coated onto a steel plate and baked to give a test piece of smooth surface, good adhesion, and solvent resistance.

IT 171664-19-0P 171664-20-3P 172274-36-1P

172519-70-9P 172519-71-0P

(thermosetting vinyl polymer powder coatings with smooth surface)

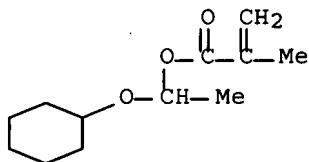
RN 171664-19-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with cyclohexyl 2-methyl-2-propenoate, 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate and 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

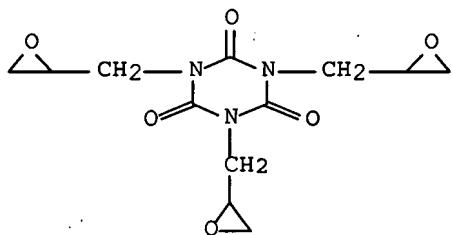
CMF C12 H20 O3



CM 2

CRN 2451-62-9

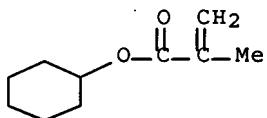
CMF C12 H15 N3 O6



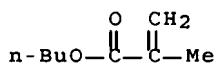
CM 3

CRN 101-43-9

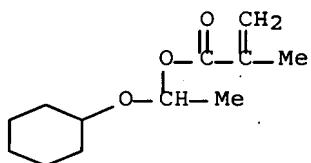
CMF C10 H16 O2



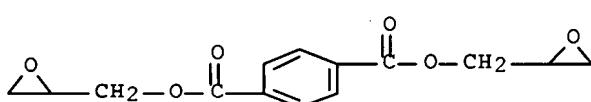
CM 4

CRN 97-88-1  
CMF C8 H14 O2RN 171664-20-3 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with  
butyl 2-methyl-2-propenoate, 1-(cyclohexyloxy)ethyl  
2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA  
INDEX NAME)

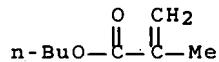
CM 1

CRN 143556-62-1  
CMF C12 H20 O3

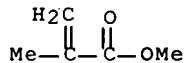
CM 2

CRN 7195-44-0  
CMF C14 H14 O6

CM 3

CRN 97-88-1  
CMF C8 H14 O2

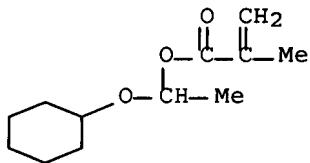
CM 4

CRN 80-62-6  
CMF C5 H8 O2

RN 172274-36-1 HCAPLUS

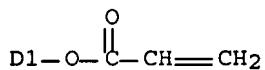
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate, decahydro-1,4:5,8-  
dimethanonaphthalenyl 2-propenoate, methyl 2-methyl-2-propenoate and  
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)  
(CA INDEX NAME)

CM 1

CRN 143556-62-1  
CMF C12 H20 O3

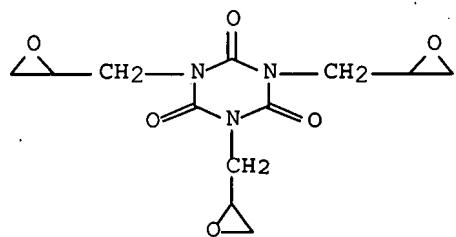
CM 2

CRN 141550-78-9  
CMF C15 H20 O2  
CCI IDS



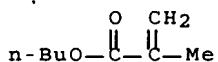
CM 3

CRN 2451-62-9  
CMF C<sub>12</sub> H<sub>15</sub> N<sub>3</sub> O<sub>6</sub>



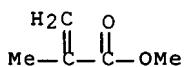
CM 4

CRN 97-88-1  
CMF C<sub>8</sub> H<sub>14</sub> O<sub>2</sub>



CM 5

CRN 80-62-6  
CMF C<sub>5</sub> H<sub>8</sub> O<sub>2</sub>



RN 172519-70-9 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate, ethenylbenzene, methyl

BERNSHTEYN 10/537,120

2-methyl-2-propenoate and Primid XL 122 (9CI) (CA INDEX NAME)

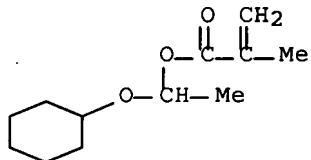
CM 1

CRN 172306-18-2  
CMF Unspecified  
CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 143556-62-1  
CMF C12 H20 O3



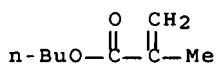
CM 3

CRN 100-42-5  
CMF C8 H8



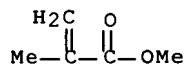
CM 4

CRN 97-88-1  
CMF C8 H14 O2



CM 5

CRN 80-62-6  
CMF C5 H8 O2



RN 172519-71-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with BF 1065,  
 cyclohexyl 2-methyl-2-propenoate, 1-(cyclohexyloxy)ethyl  
 2-methyl-2-propenoate, decahydro-1,4:5,8-dimethanonaphthalenyl  
 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and Primid XL 122  
 (9CI) (CA INDEX NAME)

CM 1

CRN 172306-18-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 171263-93-7

CMF Unspecified

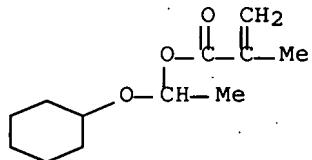
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 143556-62-1

CMF C12 H20 O3

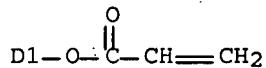


CM 4

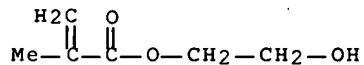
CRN 141550-78-9

CMF C15 H20 O2

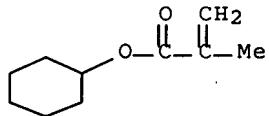
CCI IDS



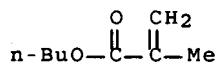
CM 5

CRN 868-77-9  
CMF C6 H10 O3

CM 6

CRN 101-43-9  
CMF C10 H16 O2

CM 7

CRN 97-88-1  
CMF C8 H14 O2

IC ICM C09D005-03  
 ICS C09D133-04  
 CC 42-7 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 55  
 IT 171664-19-0P 171664-20-3P 171664-21-4P  
 172274-36-1P 172304-08-4P 172519-70-9P  
 172519-71-0P

(thermosetting vinyl polymer powder coatings with smooth surface)

L9 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:701570 HCAPLUS Full-text  
 DOCUMENT NUMBER: 121:301570  
 TITLE: Manufacture of hemiacetal esters  
 INVENTOR(S): Yamamura, Kazuo; Oooka, Masataka  
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06135877	A	19940517	JP 1992-210236	19920806
			<--	
PRIORITY APPLN. INFO.:			JP 1992-210236	19920806
			<--	

OTHER SOURCE(S): MARPAT 121:301570

ED Entered STN: 24 Dec 1994

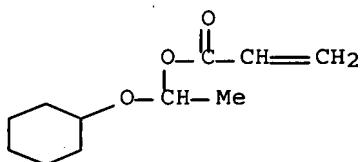
AB The title esters having  $\text{CO}_2\text{CHMeOZ}$  group (Z = organic group) are prepared by addition reaction of vinyl ethers  $\text{CH}_2:\text{CHOZ}$  and ethylenically unsatd. carboxylic acids other than methacrylic acid in the presence of an acid halide catalyst. 1-Butoxyethyl acrylate was prepared in 81% yield from acrylic acid and Bu vinyl ether in the presence of acryloyl chloride.

IT 153206-78-1P

(manufacture of)

RN 153206-78-1 HCAPLUS

CN 2-Propenoic acid, 1-(cyclohexyloxy)ethyl ester (9CI) (CA INDEX NAME)



IC ICM C07C043-30

ICS C07C069-653

CC 35-2 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 23

IT 77-99-6DP, Trimethylolpropane, reaction products with caprolactone and Et vinyl ether 502-44-3DP,  $\epsilon$ -Caprolactone, reaction products with trimethylolpropane and Et vinyl ether 52858-59-0P 86164-66-1P 90646-92-7P 153206-78-1P

(manufacture of)

L9 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:109600 HCAPLUS Full-text

DOCUMENT NUMBER: 120:109600

TITLE: Hemiacetal or hemiketal ester-protected functional group-containing vinyl polymers for coatings

INVENTOR(S): Azuma, Ichiro; Iwamura, Goro; Takezawa, Shoichiro;  
 Oooka, Masataka; Yamamura, Kazuo  
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05186739	A	19930727	JP 1992-3841	19920113
JP 1992-3841				<-- 19920113
JP 1992-3841				<--

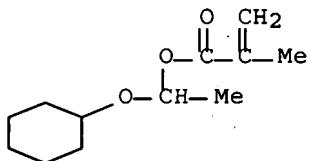
PRIORITY APPLN. INFO.:

ED    Entered STN: 05 Mar 1994  
 AB    Storage-stable, acid- and scratch-resistant coatings contain title polymers, polymers containing  $\geq 2$  epoxy groups, and OH-reactive hardeners. A composition containing Super-Beckamine L 117, Bu acrylate (I)-Bu methacrylate (II)-glycidyl methacrylate-styrene (III) copolymer, and I-II-III-1-(iso-butoxy)ethyl methacrylate showed good storage stability at 40° for 20 days.  
 IT    152330-05-7P  
       (preparation of, coatings containing, storage-stable)  
 RN    152330-05-7 HCPLUS  
 CN    2-Propenoic acid, methoxy-, 3-(trimethoxysilyl)propyl ester, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate and ethenylbenzene (9CI)  
       (CA INDEX NAME)

CM    1

CRN    143556-62-1

CMF    C12 H20 O3

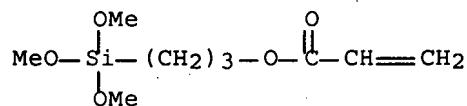


CM    2

CRN    34215-73-1

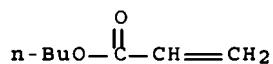
CMF    C10 H20 O6 Si

CCI    IDS

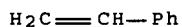


D1—O—Me

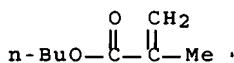
CM 3

CRN 141-32-2  
CMF C7 H12 O2

CM 4

CRN 100-42-5  
CMF C8 H8

CM 5

CRN 97-88-1  
CMF C8 H14 O2

IC ICM C09D163-00  
 ICS B05D001-36; B05D007-24; C09D161-20; C09D175-04; C09D201-06  
 ICA C08G059-40  
 CC 42-10 (Coatings, Inks, and Related Products)  
 IT 152330-04-6P 152330-05-7P 152330-06-8P 152330-07-9P  
 152381-90-3P  
 (preparation of, coatings containing, storage-stable)

L9 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:56812 HCAPLUS Full-text  
 DOCUMENT NUMBER: 120:56812

TITLE: Foamable thermosetting powder coating compositions  
 and coated products using the same  
 INVENTOR(S): Matsubara, Yoshiro; Mashita, Mitsuyuki  
 PATENT ASSIGNEE(S): Nippon Oils & Fats Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05148430	A	19930615	JP 1991-337761 <--	19911127
PRIORITY APPLN. INFO.:			JP 1991-337761 <--	19911127

ED Entered STN: 05 Feb 1994  
 AB The title compns. providing coatings with heat and sound insulation (no data) contain a vinyl copolymer (Tg 40-150°, Mw 2000-50,000) from 5-80% R1R2C:CR3(R4)kCO2CR5(CHR6R7)(YR8) (I, R1-7 = H, C1-18 organic group; R8 = C1-18 organic group; R7 and R8 could be ring member with Y as heteroatom; Y = O, S; k = 0, 1) and 95-20% other vinyl monomer and 0.5-2.0 mol (based on I) solid compound containing ≥2 epoxy groups. A powdered copolymer (Tg 59.9°, Mw 7500) prepared from 1-ethoxyethyl methacrylate 31.6, Me methacrylate 52.4, and Bu methacrylate 16 parts in the presence of AIBN and lauryl mercaptan was mixed 78.2:21.8 with diglycidyl terephthalate, electrostatically coated on tinplate, and baked at 160° for 30 min to give a foamed coating with expansion ratio 2.5-3.0 with good solvent and water resistance.

IT 152313-23-0P  
 (manufacture of, for foamable solvent- and water-resistant powder coatings)

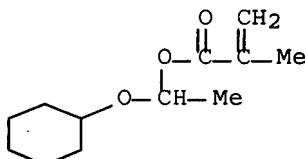
RN 152313-23-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

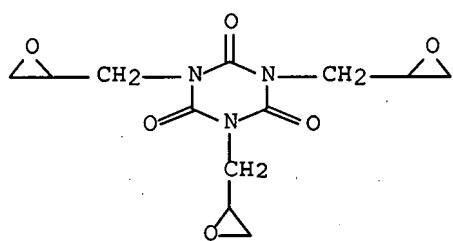
CMF C12 H20 O3



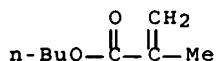
CM 2

CRN 2451-62-9

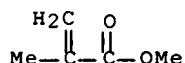
CMF C12 H15 N3 O6



CM 3

CRN 97-88-1  
CMF C8 H14 O2

CM 4

CRN 80-62-6  
CMF C5 H8 O2

IC ICM C09D005-03  
 ICS C09D005-00; C09D005-03; C09D133-14; C09D163-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 IT 152313-22-9P 152313-23-0P 152313-24-1P 152313-25-2P  
 (manufacture of, for foamable solvent- and water-resistant powder  
 coatings)

L9 ANSWER 32 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:56811 HCPLUS Full-text  
 DOCUMENT NUMBER: 120:56811  
 TITLE: Foamable thermosetting powder coating compositions  
 and coated products using the same  
 INVENTOR(S): Mashita, Mitsuyuki; Matsubara, Yoshiro; Kawashima,  
 Tatsuo  
 PATENT ASSIGNEE(S): Nippon Oils & Fats Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05148429	A	19930615	JP 1991-336122	19911126
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PRIORITY APPLN. INFO.:			JP 1991-336122	19911126
<--				

ED Entered STN: 05 Feb 1994

AB The title compns. providing coatings with heat and sound insulation (no data) contain a vinyl copolymer or blend with Tg 40-150° and Mw 2000-50,000, wherein the vinyl copolymer is from 5-80% R1R2C:CR3(R4)kCO2CR5(CHR6R7) (YR8) (R1-7 = H, C1-18 organic group; R8 = C1-18 organic group; R7 and R8 could be ring member with Y as heteroatom; Y = O, S; k = 0, 1), 0.5-2.0 mol (based on the above monomer) glycidyl group-containing vinyl monomer and/or  $\beta$ -hydroxyalkylamide group-containing vinyl monomer, and other vinyl monomer. A powdered copolymer (Tg 60°, Mw 14,500) prepared from 1-ethoxyethyl methacrylate 31.6, tetracyclododecyl acrylate 35.4, cyclohexyl methacrylate 4.6, and glycidyl methacrylate 28.4 parts in the presence of AIBN was classified (150 mesh), electrostatically coated on tinplate, and baked at 160° for 30 min to give a foamed coating with expansion ratio 2.5-3.0 with good solvent and water resistance.

IT 152188-84-6P

(manufacture of, for foamable thermosetting powder coatings with good solvent and water resistance)

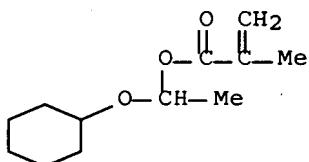
RN 152188-84-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with cyclohexyl 2-methyl-2-propenoate, 1-(cyclohexyloxy)ethyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

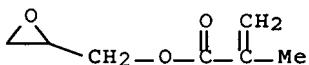
CMF C12 H20 O3



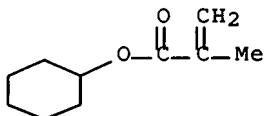
CM 2

CRN 106-91-2

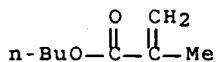
CMF C7 H10 O3



CM 3

CRN 101-43-9  
CMF C10 H16 O2

CM 4

CRN 97-88-1  
CMF C8 H14 O2

IC ICM C09D005-03  
 ICS C09D005-00; C09D129-10; C09D133-14  
 CC 42-10 (Coatings, Inks, and Related Products)  
 IT 79-10-7DP, Acrylic acid, tetracyclododecyl esters, acrylic copolymers  
 101-43-9DP, Cyclohexyl methacrylate, acrylic copolymers 106-91-2DP,  
 Glycidyl methacrylate, acrylic copolymers 51920-52-6DP, acrylic  
 copolymers 52858-59-0DP, Tetrahydropyranyl methacrylate, acrylic  
 copolymers 138554-09-3DP, 1-Isobutoxyethyl methacrylate, acrylic  
 copolymers 151486-00-9DP, acrylic copolymers 152121-14-7P  
**152188-84-6P**  
 (manufacture of, for foamable thermosetting powder coatings with good  
 solvent and water resistance)

L9 ANSWER 33 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1993:255506 HCPLUS Full-text  
 DOCUMENT NUMBER: 118:255506  
 TITLE: Preparation of 1-substituted ethyl methacrylate  
 INVENTOR(S): Yamamura, Kazuo; Ooka, Masataka  
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04279609	A	19921005	JP 1991-151671	19910624

JP 3180818 B2 20010625  
 PRIORITY APPLN. INFO.: JP 1990-203717 A1 19900731

OTHER SOURCE(S): MARPAT 118:255506

ED Entered STN: 26 Jun 1993

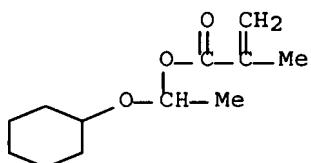
AB The title compds.  $H_2C:CM\text{eCOOCHMe(OZ)}$  ( $Z = C_3\text{-}18$  alkyl,  $C_1\text{-}18$  substituted alkyl, cyclopentyl, cyclohexyl, aromatic group) are prepared by reacting methacrylic acid (I) with  $H_2C:CH(OZ)$ . Thus, adding 100 g Bu vinyl ether to a mixture of I 80, methacryloyl chloride 0.6, and phenothiazine 0.1 g dropwise at  $40^\circ$  over 30 min, and heating at  $50^\circ$  for 4 h gave 81% 1-butoxy-1-ethyl methacrylate.

IT 143556-62-1P

(preparation of)

RN 143556-62-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester (9CI) (CA INDEX NAME)



IC ICM C08F020-28

ICS C07C067-04; C07C069-54

CC 35-2 (Chemistry of Synthetic High Polymers)

IT 85997-75-7P 143556-62-1P 147898-28-0P

(preparation of)

L9 ANSWER 34 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:551623 HCPLUS Full-text

DOCUMENT NUMBER: 117:151623

TITLE: Vinyl polymers with hemiacetal or hemiketal ester side chains

INVENTOR(S): Iwamura, Goro; Yamamura, Kazuo; Ooka, Masataka

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04103605	A	19920406	JP 1990-222186	19900823

PRIORITY APPLN. INFO.: JP 1990-222186 19900823  
 <--

ED Entered STN: 17 Oct 1992

AB The title polymers have side chains  $CO_2R_1$  ( $R_1 =$  oxacycloalkyl or 1-alkoxy-1-cycloalkyl) or  $CO_2CH(OR_3)CH_2R_2$  [ $R_2 = H$ ,  $C_1\text{-}10$  alkyl;  $R_3 =$  (un)substituted  $C_1\text{-}22$  alkyl] in 0.1-100% of the repeating units. Thus, 2-

(methacryloyloxy)tetrahydrofuran was polymerized in PhMe in the presence of 0.2% tert-Bu peroctoate at 100° to give a polymer having number-average mol. weight 100,000, acid value ≤0.1, and good stability.

IT 143556-63-2P

(preparation of, with long-term stability)

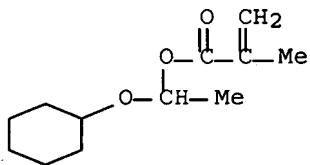
RN 143556-63-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester, polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 143556-62-1

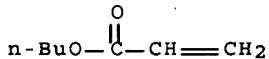
CMF C12 H20 O3



CM 2

CRN 141-32-2

CMF C7 H12 O2



IC ICM C08F020-28

ICS C08F016-18; C08F018-04; C08F020-30; C08F022-20; C08F214-24; C08F246-00

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37

IT 39612-01-6P 143556-56-3P 143556-57-4P 143556-59-6P

143556-61-0P 143556-63-2P 143556-65-4P 143684-67-7P

143684-68-8P

(preparation of, with long-term stability)

L9 ANSWER 35 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:160680 HCPLUS Full-text

DOCUMENT NUMBER: 114:160680

TITLE: Caffeoylmalic and two pyrrole acids from Parietaria officinalis

AUTHOR(S): Budzianowski, Jaromir

CORPORATE SOURCE: Dep. Pharm. Bot., K. Marcinkowski Med. Acad., Poznan, 61-712, Pol.

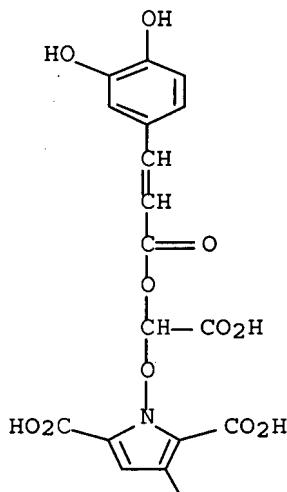
SOURCE: Phytochemistry (1990), 29(10), 3299-301

CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:160680  
 ED Entered STN: 03 May 1991  
 AB A methanolic extract from leaves and flowers of *P. officinalis* afforded 3 acids, namely caffeoymalic, 1H-pyrrole-2,3-dicarboxylic, and 1-[(caffeoxyloxy)(carboxy)methoxy]-1H-pyrrole-2,3,5-tricarboxylic acids.  
 IT 133084-32-9  
 (from *Parietaria officinalis*)  
 RN 133084-32-9 HCAPLUS  
 CN 1H-Pyrrole-2,3,5-tricarboxylic acid, 1-[carboxy[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]methoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

CO<sub>2</sub>H

CC 11-1 (Plant Biochemistry)  
 IT 1125-32-2, 1H-Pyrrole-2,3-dicarboxylic acid 53755-04-7  
 133084-32-9  
 (from *Parietaria officinalis*)

L9 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1991:25544 HCAPLUS Full-text  
 DOCUMENT NUMBER: 114:25544  
 TITLE: Anaerobic adhesive compositions  
 INVENTOR(S): Haruna, Katsunori; Okuma, Atsushi  
 PATENT ASSIGNEE(S): Three Bond Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02187401	A	19900723	JP 1989-8066	19890117
				<--
PRIORITY APPLN. INFO.:			JP 1989-8066	19890117
				<--

ED Entered STN: 26 Jan 1991

AB Title compns., room temperature-curable and useful for fastening bolts and nuts, comprise ethylenic double bond-terminated monomers, polymerization initiators, and heterocyclic compds. containing imidazole, 2H-1,3-dioxole, and/or 2H,5H-1,2,5-oxadiazole rings or their isomers in their structure. Thus, a mixture of 2-hydroxy-1-phenoxyethyl acrylate 20, isobornyl methacrylate 20, GMN-U (polyurethane acrylate) 40, 2-hydroxyethyl methacrylate 20, EDTA di-Na salt 0.02, cumene hydroperoxide 0.5, n-dodecyl mercaptan 0.2, and 2- mercaptobenzimidazole (I) 1.0 part was applied to an Fe bolt, screwed into an Fe nut, and allowed to cure until unloosenable by hand. The set time was 100 s vs.  $\geq$ 24 h without I or 120 s with o-benzoic sulfimide in place of I.

IT 122280-44-8P

(preparation of, as room temperature-cured anaerobic adhesives for fastening

bolts and nuts, catalysts for)

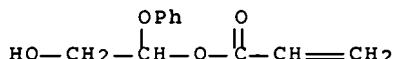
RN 122280-44-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with GMN-U, 2-hydroxy-1-phenoxyethyl 2-propenoate and exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 122280-43-7

CMF C11 H12 O4



CM 2

CRN 122157-62-4

CMF Unspecified

CCI PMS, MAN

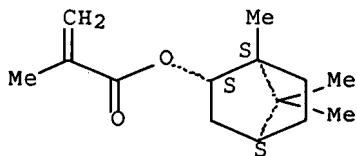
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

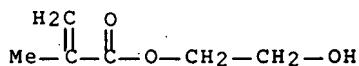
CRN 7534-94-3

CMF C14 H22 O2

Relative stereochemistry.



CM 4

CRN 868-77-9  
CMF C6 H10 O3

IC ICM C08F002-38  
 ICS C08F004-00; C09J004-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 37  
 IT 80-05-7DP, Bisphenol A, derivs., methacrylate, polymers with  
 hydroxyethyl methacrylate 868-77-9DP, 2-Hydroxyethyl methacrylate,  
 polymers with bisphenol A-type methacrylates 122280-44-8P  
 (preparation of, as room temperature-cured anaerobic adhesives for  
 fastening  
 bolts and nuts, catalysts for)

L9 ANSWER 37 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1988:204409 HCPLUS Full-text  
 DOCUMENT NUMBER: 108:204409  
 TITLE: Preparation of 6-(substituted methylene)penem  
 antibiotics by novel routes  
 INVENTOR(S): Coulton, Steven; Harbridge, John Barry; Osborne,  
 Neal Frederick; Walker, Graham  
 PATENT ASSIGNEE(S): Beecham Group PLC, UK  
 SOURCE: Eur. Pat. Appl., 68 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 232966	A1	19870819	EP 1987-300193	19870109
EP 232966	B1	19971008		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE AT 159021	T	19971015	AT 1987-300193	19870109
DK 8700212	A	19870718	DK 1987-212	19870115
NO 8700176	A	19870720	NO 1987-176	19870115

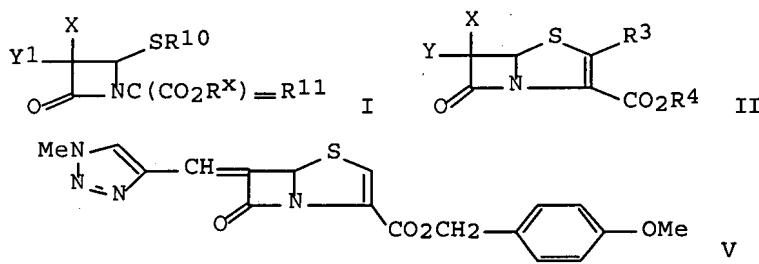
BERNSHTEYN 10/537,120

AU 8767586	A	19870723	AU 1987-67586	19870115
			<--	
AU 607693	B2	19910314		
ZA 8700273	A	19871230	ZA 1987-273	19870115
			<--	
HU 45260	A2	19880628	HU 1987-114	19870115
			<--	
HU 198725	B	19891128		
FI 8700176	A	19870718	FI 1987-176	19870116
			<--	
JP 62169792	A	19870725	JP 1987-8854	19870116
			<--	
JP 07098822	B	19951025		
AU 9178267	A	19910829	AU 1991-78267	19910611
			<--	
AU 9178268	A	19910829	AU 1991-78268	19910611
			<--	
JP 08291139	A	19961105	JP 1995-139794	19950418
			<--	
PRIORITY APPLN. INFO.:			GB 1986-1119	A 19860117
			<--	
			GB 1986-25017	A 19861018
			<--	

OTHER SOURCE(S) : MARPAT 108:204409

ED      Entered STN:  11 Jun 1988

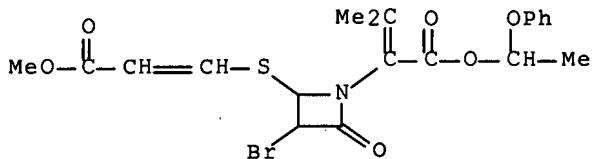
GI



AB Azetidinones I [Rx = carboxy protective group; R10 = H, (un)substituted ammonium ion, organothio group, metal ion, CR3:R13; R11 = O, 1-methylethylidene, phosphoranylidene; R3 = H, organic group; R13 = O, S, CHR14; R14 = H, organic group; X = halo; Y1 = H, halo] were prepared and converted to penems II [R3 = H, organic group; R4 = H, ion, ester residue; X = halo; Y = H, halo, CHZR12; R12 = H, (un)substituted hydrocarbyl, heterocyclyl; Z = halo, (un)substituted OH, SOnR5, SeOmR5; R5 = H, hydrocarbyl, heterocyclyl; n = 0-2; m = 0, 1] which, in turn, were converted to antibacterial agents II (XY = CHR12) (III). 4-Methoxybenzyl 6-bromopenicillanate 1-oxide and HC.tplbond.CCO2CH2CCl3 were refluxed in PhMe and the product treated with PBr3 to give I [R10 = (E)-CH:CHCO2CH2CCl3, R11 = CMe2, Rx = 4-MeOC6H4CH2, X = Br, Y1 = H] which was ozonized followed by treatment with (MeO)3P to give II (R3 = Y = H, R4 = 4-MeOC6H4CH2, X = Br) (IV). The latter was stirred with (Me3Si)2NLi followed by 1-methyl-1,2,3-triazole-4-carboxaldehyde to give II [Y = (1-methyl-1,2,3-triazol-4-yl)hydroxymethyl] which was treated with Ac2O

followed by Zn/HOAc to give (triazolylmethylene)penemcarboxylate (Z)-V and a small amount of the (E)-isomer.

IT 114408-67-2P  
 (preparation and reaction of, in preparation of antibacterial agents)  
 RN 114408-67-2 HCPLUS  
 CN 1-Azetidineacetic acid, 3-bromo-2-[(3-methoxy-3-oxo-1-propenyl)thio]-  
 $\alpha$ -(1-methylethylidene)-4-oxo-, 1-phenoxyethyl ester (9CI) (CA  
 INDEX NAME)



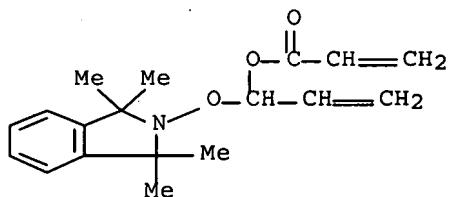
IC ICM C07D499-00  
 ICS C07F009-65; C07D205-08  
 ICA C07D417-12  
 CC 26-5 (Biomolecules and Their Synthetic Analogs)  
 Section cross-reference(s): 1  
 IT 76631-83-9P 94134-57-3P 96572-55-3P 102991-08-2P 114408-47-8P  
 114408-66-1P 114408-67-2P 114408-83-2P 114408-92-3P  
 114408-93-4P 114408-95-6P 114408-96-7P 114408-97-8P  
 114408-98-9P 114408-99-0P 114409-12-0P 114409-13-1P  
 114409-14-2P 114409-15-3P 114409-17-5P 114409-18-6P  
 114409-19-7P 114409-20-0P 114409-22-2P 114409-23-3P  
 114409-24-4P 114409-25-5P 114409-26-6P 114409-27-7P  
 114429-78-6P 114429-79-7P 114429-80-0P 114429-81-1P  
 114429-82-2P 114429-83-3P 114429-84-4P 114488-60-7P  
 114488-61-8P  
 (preparation and reaction of, in preparation of antibacterial agents)

L9 ANSWER 38 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1988:151009 HCPLUS Full-text  
 DOCUMENT NUMBER: 108:151009  
 TITLE: Initiation mechanisms in radical polymerization:  
 reaction of tert-butoxy radicals with allyl  
 acrylate and with diallyl ether  
 AUTHOR(S): Busfield, W. Ken; Jenkins, Ian D.; Thang, San H.;  
 Rizzardo, Ezio; Solomon, David H.  
 CORPORATE SOURCE: Sch. Sci., Griffith Univ., Nathan, 4111, Australia  
 SOURCE: Journal of the Chemical Society, Perkin  
 Transactions 1: Organic and Bio-Organic Chemistry  
 (1972-1999) (1988), (3), 485-90  
 CODEN: JCPRB4; ISSN: 0300-922X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 30 Apr 1988  
 AB The radical trapping technique employing 1,1,3,3-tetramethyl-1,3-dihydroisoindol-2-yloxy as a scavenger was used to study the reaction of tert-butoxy radicals with allyl acrylate and with diallyl ether. With allyl acrylate, extensive H abstraction as well as addition to both allyl and acryloyl double bonds were observed, whereas with diallyl ether, the only products obtained were derived exclusively from H abstraction.  
 IT 113694-93-2P

(preparation of)

RN 113694-93-2 HCAPLUS

CN 2-Propenoic acid, 1-[(1,3-dihydro-1,1,3,3-tetramethyl-2H-isoindol-2-yl)oxy]-2-propenyl ester (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 89429-39-0P 113694-89-6P 113694-90-9P 113694-91-0P

113694-92-1P 113694-93-2P 113694-94-3P 113694-95-4P

113694-96-5P 113694-97-6P 113694-98-7P

(preparation of)

L9 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:437788 HCAPLUS Full-text

DOCUMENT NUMBER: 103:37788

TITLE: Initiation mechanisms in radical polymerization:  
reaction of tert-butoxy radicals with allyl  
methacrylateAUTHOR(S): Busfield, W. Ken; Jenkins, Ian D.; Thang, San H.;  
Rizzardo, Ezio; Solomon, David H.

CORPORATE SOURCE: Sch. Sci., Griffith Univ., Nathan, 4111, Australia

SOURCE: Australian Journal of Chemistry (1985),  
38(5), 689-98

CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 Aug 1985

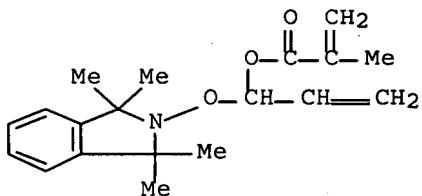
AB The radical-trapping technique employing 1,1,3,3-tetramethylisoindolin-2-ylloxy [80037-90-7] as scavenger has been used to study the reactions of tert-BuO radical [3141-58-0] (prepared from bis(tert-Bu peroxalate) allyl methacrylate [96-05-9]. Extensive H abstraction as well as addition to both allyl and acryloyl double bonds was observed. One unusual feature of the reaction, the formation of considerably more (Z)-alkene than (E)-alkene from trapping of radicals derived from the allyloxy moiety, is also discussed.

IT 96990-79-3P

(formation of, in reactions of allyl methacrylate with tert-butoxyl  
radicals, in presence isoindolinyloxy scavenger)

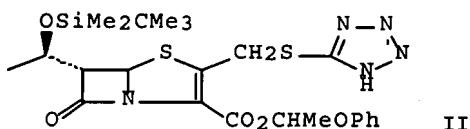
RN 96990-79-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-[(1,3-dihydro-1,1,3,3-tetramethyl-2H-isoindol-2-yl)oxy]-2-propenyl ester (9CI) (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 22, 27  
 IT 80037-95-2P 96990-79-3P 96990-80-6P 96990-81-7P  
 96990-82-8P 96990-83-9P 96990-84-0P 96990-85-1P 96990-86-2P  
 96990-87-3P 97184-51-5P  
 (formation of, in reactions of allyl methacrylate with tert-butoxyl  
 radicals, in presence isoindolinyl radical scavenger)

L9 ANSWER 40 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1985:24330 HCPLUS Full-text  
 DOCUMENT NUMBER: 102:24330  
 TITLE: 1-Phenoxyethyl esters, a new family of carboxy  
 protective groups  
 AUTHOR(S): Alpegiani, Marco; Bedeschi, Angelo; Foglio,  
 Maurizio; Perrone, Ettore  
 CORPORATE SOURCE: Ric. Sviluppo Chim., Farmitalia Carlo Erba S.p.A.,  
 Milan, Italy  
 SOURCE: Gazzetta Chimica Italiana (1984),  
 114(7-8), 391-3  
 CODEN: GCITA9; ISSN: 0016-5603  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 102:24330  
 ED Entered STN: 26 Jan 1985  
 GI



AB 4-RC6H4OCHMeCl (I, R = H, Cl, NHAc, NO2) were prepared by treating 4-RC6H4OH with CH2:CHOAc, elimination of HOAc, and hydrochlorination. I were used as carboxyl protective groups for penicillins and cephalosporins and were easily cleaved with 5% CF3CO2H-CH2Cl2. The penicillin II was simultaneously cleaved at the ester and silyl groups by treatment with HOAc-tetrahydrofuran-H2O (4:2:1) at room temperature  
 IT 89753-66-2P  
 (preparation of)  
 RN 89753-66-2 HCPLUS  
 CN 2-Butenedioic acid, bis(1-phenoxyethyl) ester (9CI) (CA INDEX NAME)



CC 26-5 (Biomolecules and Their Synthetic Analogs)  
Section cross-reference(s): 29  
IT 89753-65-1P 89753-66-2P 89753-68-4P 89753-69-5P  
89753-82-2P 89753-83-3P 89753-84-4P  
(preparation of)

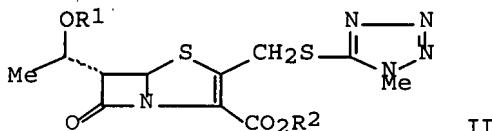
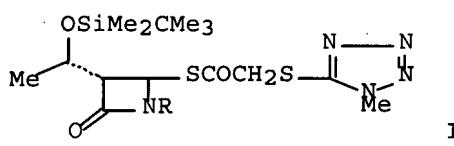
L9 ANSWER 41 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1984:191651 HCPLUS Full-text  
DOCUMENT NUMBER: 100:191651  
TITLE: Easily cleavable carboxylic esters and their use  
in the synthesis of penems and other  $\beta$ -lactam  
antibiotics  
INVENTOR(S): Alpegiani, Marco; Bedeschi, Angelo; Perrone,  
Ettore; Gandolfi, Cermelo  
PATENT ASSIGNEE(S): Farmitalia Carlo Erba S.p.A., Italy  
SOURCE: Belg., 76 pp.  
CODEN: BEXXAL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 897183	A1	19831017	BE 1983-211097 <--	19830630
GB 2124614	A	19840222	GB 1983-14782 <--	19830527
GB 2124614	B	19851030		
DE 3323117	A1	19840105	DE 1983-3323117 <--	19830627
JP 59020286	A	19840201	JP 1983-117205 <--	19830630
PRIORITY APPLN. INFO.:			GB 1982-19052	A 19820701

OTHER SOURCE(S) : MARPAT 100:191651

ED    Entered STN: 08 Jun 1984

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AB The 1-phenoxyethyl group was used as a protective group in the synthesis of penems and related compds. Thus, PhOCH<sub>2</sub> was hydrochlorinated with HCl gas to give PhOCHMeCl which was esterified with L-(+)-tartaric acid and the resulting ester oxidized with Pb(OAc)<sub>4</sub> to give HCOCO<sub>2</sub>CHMeOPh. I (R = H) was treated with HCOCO<sub>2</sub>CHMeOPh to give I [R = CH(OH)CO<sub>2</sub>CHMeOPh] which was chlorinated and treated with PPh<sub>3</sub> to give I [R = C(:PPh<sub>3</sub>)CO<sub>2</sub>CHMeOPh]. Cyclization of the phosphorane gave II (R<sub>1</sub> = SiMe<sub>2</sub>CMe<sub>3</sub>, R<sub>2</sub> = CHMeOPh) which on desilylation, hydrolysis with aqueous oxalic acid, and treatment with NaHCO<sub>3</sub> gave II (R<sub>1</sub> = H, R<sub>2</sub> = Na).

IT 89753-66-2P

### (preparation and oxidation of)

RN 89753-66-2 HCAPLUS

CN 2-Butenedioic acid, bis(1-phenoxyethyl) ester (9CI) (CA INDEX NAME)



ICI. A61

CC 26-5 (Biomolecules and Their Synthetic Analogs)

IT 89753-66-2P

(preparation and oxidation of)

L9 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1980:181492 HCAPLUS Full-text

DOCUMENT NUMBER: 92:181492

**TITLE:** Synthesis and polymerization of unsaturated derivatives of hemiacetals of chloral, levoglucosan and its oligoethers

**AUTHOR(S):** Apsite, B.; Pernikis, R.; Pundure, N.

CORPORATE SOURCE: Inst. Khim. Drev., Riga, USSR

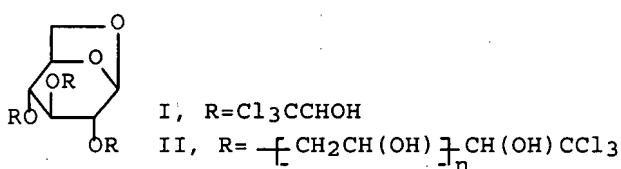
SOURCE: Latvijas PSR Zinatnu Akademijas Vestis, Kimijas Serija (1979), (6), 708-12  
CODEN: LZAKAM; ISSN: 0002-3248

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Enter

ED Entered SER. 12 May 1961  
GT



AB Levoglucosan heated with Cl<sub>3</sub>CCHO in an argon atmospheric 5 h at 65° gave 98% I. Analogous reactions of levoglucosan oligoethers gave II (n = 1-12).

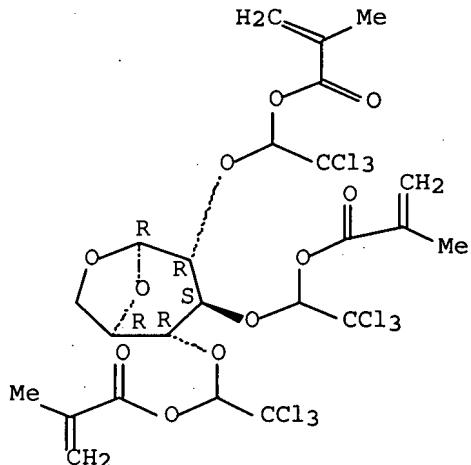
Treatment of the latter with  $\text{CH}_2:\text{CMeCOCl}$  gave 53-68% oligomers containing 3 double bonds per mol. Addnl. obtained were  $\text{R}_1[\text{OCH}(\text{CCl}_3)\text{O}_2\text{C}\text{R}_2:\text{CH}_2]_3$  ( $\text{R}_1 = \text{levoglucosan residue, R}_2 = \text{H, Me}$ ). Rate consts. for polymerization of the unsatd. hemiacetals of hydroxypropylated levoglucosan were also determined

IT 65408-19-7P 73458-97-6P  
(preparation of)

RN 65408-19-7 HCAPLUS

CN  $\beta$ -D-Glucopyranose, 1,6-anhydro-2,3,4-tris-O-[2,2,2-trichloro-1-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]- (9CI) (CA INDEX NAME)

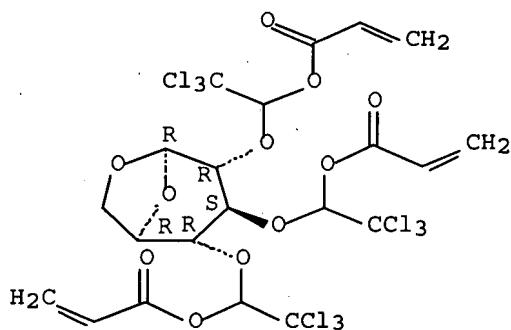
Absolute stereochemistry.



RN 73458-97-6 HCAPLUS

CN  $\beta$ -D-Glucopyranose, 1,6-anhydro-2,3,4-tris-O-[2,2,2-trichloro-1-[(1-oxo-2-propenyl)oxy]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 33-2 (Carbohydrates)  
Section cross-reference(s): 22

IT 65408-19-7P 73458-97-6P  
(preparation of)

L9 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:23423 HCPLUS Full-text  
DOCUMENT NUMBER: 90:23423  
TITLE: Synthesis of hydrophilic polyesters of D-glucose  
AUTHOR(S): Lapenko, V. L.; Prokina, V. N.  
CORPORATE SOURCE: Voronezh. Gos. Univ., Voronezh, USSR  
SOURCE: Deposited Doc. (1976), VINITI 3401-76,  
12 pp. Avail.: VINITI  
DOCUMENT TYPE: Report  
LANGUAGE: Russian

ED      Entered STN: 12 May 1984

AB      Vinyl ethers of D-glucose and its Me glucoside were prepared by heating the monosaccharides with  $\text{HC}\text{.tplbond.CH}$  in aqueous dioxane in an autoclave 5 h at  $160^\circ$  and 12 atmospheric. Subsequent treatment with  $\text{CH}_2\text{:CMeCO}_2\text{H}$  or  $(\text{CH}_2\text{:CMeCO})_2\text{O}$  gave hydrophilic polyesters. Addnl. obtained were polymethacrylates of D-glucose and its Me glucoside.

IT 68115-89-9P

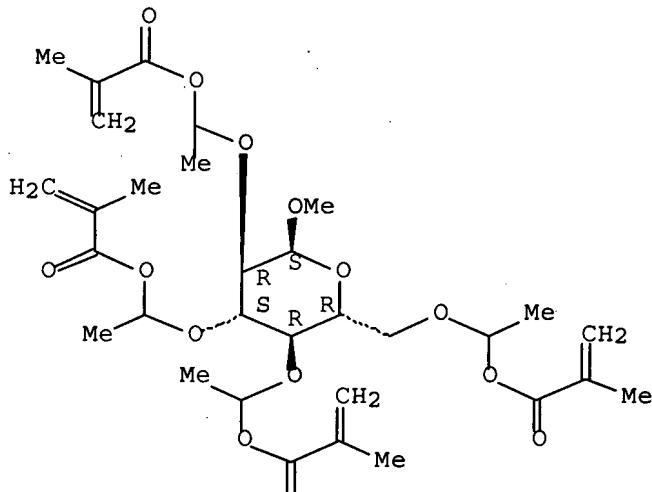
(preparation of)

RN 68115-89-9 HCAPLUS

CN  $\alpha$ -D-Glucopyranoside, methyl 2,3,4,6-tetrakis-O-[1-[(2-methyl-1-oxo-2-propenyl)oxyl]ethyl]- (9CI) (CA INDEX NAME)

### Absolute stereochemistry.

PAGE 1-A



PAGE 2 - A

## CC 33-2 (Carbohydrates)

Section cross-reference(s) : 35

IT 97-30-3DP, polyvinyl ethers 68091-36-1P 68103-40-2P 68103-41-3P  
68103-42-4P 68115-89-9P 68223-84-7P 68666-00-2P  
(preparation of)

L9 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1973:466391 HCAPLUS Full-text  
 DOCUMENT NUMBER: 79:66391  
 TITLE: Bronchodilating 4-hydroxy-5-phenoxyprimidines  
 INVENTOR(S): Lipinski, Christopher A.; Stam, John G.;  
 DeAngelis, Gerald G.; Hess, Hans J. E.  
 PATENT ASSIGNEE(S): Pfizer Inc.  
 SOURCE: Ger. Offen., 11 pp. Division of Ger. Offen.  
 2,248,741.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2264374	A1	19730524	DE 1972-2264374	19721005 <--
DE 2264374	B2	19800807		
DE 2264374	C3	19810723		
GB 1377308	A	19741211	GB 1972-7748	19720218 <--
GB 1377720	A	19741218	GB 1973-50053	19720218 <--
SE 7505279	A	19750506	SE 1975-5279	19720925 <--
SE 397090	B	19771017		
SE 393376	B	19770509	SE 1972-12358	19720925 <--
AU 7247228	A	19740404	AU 1972-47228	19720928 <--
IL 40458	A	19760531	IL 1972-40458	19720928 <--
AT 320656	B	19750225	AT 1974-933	19721006 <--
AT 321308	B	19750325	AT 1972-8589	19721006 <--
FI 55503	C	19790810	FI 1972-2825	19721012 <--
FI 55503	B	19790430		
SU 498908	A3	19760105	SU 1972-1839308	19721013 <--
NO 136574	B	19770620	NO 1972-3686	19721013 <--
BE 790125	A1	19730416	BE 1972-1004478	19721016 <--
NL 7213959	A	19730502	NL 1972-13959	19721016 <--
NL 166470	B	19810316		
NL 166470	C	19810817		
FR 2157865	A1	19730608	FR 1972-36560	19721016 <--
JP 48052780	A	19730724	JP 1972-102799	19721016 <--
JP 53037870	B	19781012		
ZA 7207362	A	19731128	ZA 1972-7362	19721016 <--
CH 549579	A	19740531	CH 1974-1656	19721016

## BERNSHTEYN 10/537,120

CH 555832	A	19741115	CH 1972-15078	19721016
DK 131465	B	19750721	DK 1972-5100	19721016
CA 980778	A1	19751230	CA 1972-153956	19721016
PL 84634	B1	19760430	PL 1972-158297	19721016
PL 89852	B1	19761231	PL 1972-174103	19721016
ES 407730	A1	19760116	ES 1972-407730	19721018
SU 505362	A3	19760228	SU 1974-2008490	19740326
DK 134016	B	19760830	DK 1974-2949	19740531
ES 436624	A1	19770201	ES 1975-436624	19750415
NO 7603797	A	19730502	NO 1976-3797	19761108
JP 54022995	B	19790810	JP 1978-13360	19780208
JP 53116386	A	19781011		
FI 55504	C	19790810	FI 1978-1204	19780419
FI 55504	B	19790430		
NL 8100488	A	19810601	NL 1981-488	19810202
NL 172654	B	19830502		
NL 172654	C	19831003		
PRIORITY APPLN. INFO.:			US 1971-194006	A 19711029
			<--	
			FI 1972-2825	A 19721012
			<--	
			NO 1972-3686	A 19721013
			<--	
			DK 1972-5100	A 19721016
			<--	

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

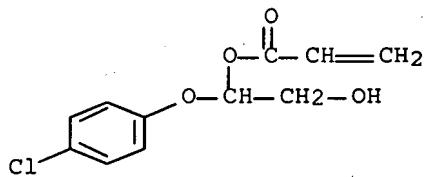
AB Ten title compds. (I; R = H, Cl, F, Me, MeO, or CO<sub>2</sub>H; R<sub>1</sub> = H, 2- or 3-Cl, or 3-Me) were prepared from 5-phenoxythiouracils. Thus, thiourea, MeONa, and 4-ClC<sub>6</sub>H<sub>4</sub>OC(:CHONa)CO<sub>2</sub>Et were refluxed in EtOH 14 hr to give 5-(4-chlorophenoxy)thiouracil (II). II was treated with Raney Ni in aqueous NaOH under N 1.5 hr at 60° to give I (R = Cl, R<sub>1</sub> = H). I had higher bronchodilating activity than theophylline.

IT 42310-29-2

(reaction with thiourea)

RN 42310-29-2 HCPLUS

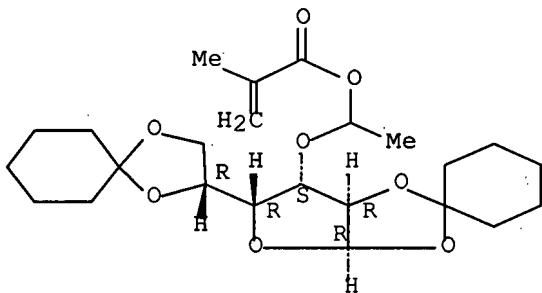
CN 2-Propenoic acid, 1-(4-chlorophenoxy)-2-hydroxyethyl ester (9CI) (CA INDEX NAME)



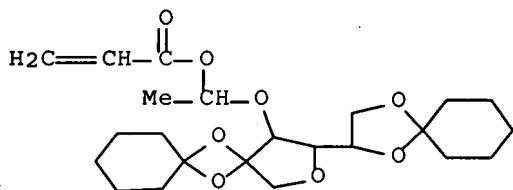
IC C07D  
 CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))  
 IT 42310-29-2  
 (reaction with thiourea)

L9 ANSWER 45 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1970:445708 HCPLUS Full-text  
 DOCUMENT NUMBER: 73:45708  
 TITLE: Acylals and acetals based on dicyclohexylidene-D-glucose  
 AUTHOR(S): Mikhant'ev, B. I.; Lapenko, V. L.; Ponomarenko, E. Yu.  
 CORPORATE SOURCE: Voronezh. Gos. Univ., Voronezh, USSR  
 SOURCE: Zhurnal Obshchey Khimii (1970), 40(4), 911-14  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 12 May 1984  
 AB Keeping 0.01 mole 1,2:5,6-di-O-cyclohexylidene-3-O-vinyl-D-glucose (I) with 0.1 mole appropriate acid 21-8 hr at either 20-5° or 70° (only with AcOH and EtCO2H) gave the appropriate acylals: 3-O-1-acyloxyethyl 1,2:5,6-di-O-cyclohexylidene-D-glucoses: formoxy, b0·06 161-4°, d20 1.0115, n20D 1.4910; acetoxy, b0·1 160-3°, 1.1153, 1.3910; propionoxy, b0·1 176-9°, 1.1072, 1.4880; isobutyroxy, b0·1 180-2°, 1.1718, 1.4980; acryloxy, b0·1 150-2°, 1.1888, 1.4960; and methacryloxy, b0·1 195-8°, 1.1428, 1.4990. The yields were 51-68%. Hydrogenation over Raney Ni in EtOH converted the acryloxy and methacryloxy members to their saturated analogs. I in dry ROH in the presence of H2SO4 gave the corresponding acetal in 55-80% yield (alkoxy group shown): EtO, b0·1 151-3°, 1.1788, 1.5093; PrO, b0·1 152-5°, 1.0553, 1.5040; BuO, b0·1 163-5°, 1.1510, 1.5058; and CH2:CHCH2O, b0·1 140-3°, 1.1575, 1.5050. The Bu acetal was also prepared from BuOCH:CH2 and 1,2:5,6-di-O-cyclohexylidene-D-glucose in the presence of H2SO4 in 65% yield in 10 hr.  
 IT 28867-42-7P 29024-86-0P  
 (preparation of)  
 RN 28867-42-7 HCPLUS  
 CN Glucofuranose, 1,2:5,6-di-O-cyclohexylidene-3-O-(1-hydroxyethyl)-, methacrylate, α-D- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 29024-86-0 HCPLUS

CN Glucofuranose, 1,2:5,6-di-O-cyclohexylidene-3-O-(1-hydroxyethyl)-, acrylate,  $\alpha$ -D- (8CI) (CA INDEX NAME)

CC 33 (Carbohydrates)

IT 182-00-3DP, Spiro[cyclohexane-1,2'-furo[2,3-d][1,3]dioxole], sugar derivs. 28867-40-5P 28867-41-6P 28867-42-7P 28867-43-8P 28867-44-9P 28867-45-0P 28867-46-1P 29024-84-8P 29024-85-9P 29024-86-0P (preparation of)

L9 ANSWER 46 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1955:73470 HCPLUS Full-text

DOCUMENT NUMBER: 49:73470

ORIGINAL REFERENCE NO.: 49:13931b-e

TITLE: Chemical transformations of unsaturated and high molecular weight compounds. III. Copolymerization of methacrylic acid and its methyl ester with vinyl phenyl ether

AUTHOR(S): Shostakovskii, M. F.; Khomutov, A. M.

CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow

SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1954) 924-30

CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

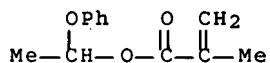
LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB cf. C.A. 49, 9961a. Copolymerization of PhOCH:CH<sub>2</sub> with CH<sub>2</sub>:CMeCO<sub>2</sub>H (I) and its Me ester (II) were run at 60° in the presence of 0.2% Bz<sub>2</sub>O<sub>2</sub>; a 1:1 ratio of the ether and II gave a copolymer soluble in 1:1 BuOH-PhOCH:CH<sub>2</sub>. At 1/3 ratio of II and PhOCH:CH<sub>2</sub> the copolymer was formed similarly and its solubility was similar to the above. As the proportion of PhOCH:CH<sub>2</sub> in the initial mixture was raised from 25% to 75%, the content of PhOCHCH<sub>2</sub> unit in

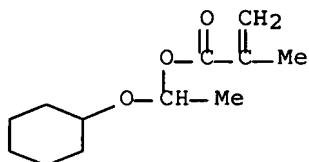
the copolymer rose from 11.5 to 34.6%, but the yield of the copolymer declined from 76% to 10.56%. The absolute viscosity of the product declined from 0.021 to 0.0081, and relative viscosity from 2.89 to 1.09. Interaction of I and PhOCH:CH<sub>2</sub> in 3/1 ratio gave a 10% yield of product, containing 57.88% I units. At 1:1 proportion of reactants, the product contained 42% I units and had mol. weight 2265, while at 1:3 reactant proportion the product contained 53.5% I units. The liquid residue contained appreciable amts. of CH<sub>2</sub>:CMeCO<sub>2</sub>CHMeOPh. The results indicate that along with copolymerization side reactions take place which result in formation of acylals.

IT 255716-77-9P, Acetaldehyde, phenyl hemiacetal, methacrylate  
(preparation of)  
RN 255716-77-9 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 1-phenoxyethyl ester (9CI) (CA INDEX  
NAME)



CC 10 (Organic Chemistry)  
IT 255716-77-9P, Acetaldehyde, phenyl hemiacetal, methacrylate  
255716-77-9P, Ethanol, 1-phenoxy-, methacrylate  
(preparation of)

L9 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1954:3379 HCAPLUS Full-text  
DOCUMENT NUMBER: 48:3379  
ORIGINAL REFERENCE NO.: 48:580i, 581a  
TITLE:  $\alpha$ -Butoxyethyl methacrylate  
AUTHOR(S): Shostakovskii, M. F.; Gershtein, N. A.; Raskin, Ya. L.; Ostroumova, L. E.  
SOURCE: Akad. Nauk S.S.R., Inst. Org. Khim., Sintez Org. Soedinenii, Sbornik (1952), 2, 22-4  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
ED Entered STN: 22 Apr 2001  
AB cf. C.A. 43, 3785i. Heating 25 g. BuOCH:CH<sub>2</sub> and 21.5 g. freshly distilled CH<sub>2</sub>:CMeCO<sub>2</sub>H in sealed tube 5-5.5 hrs. on a steam bath gave on distillation in N atmospheric 90% MeCH(OBu)O<sub>2</sub>CCMe:CH<sub>2</sub>, b<sub>35</sub> 99°, b<sub>27</sub> 86°, b<sub>30</sub> 89°, d<sub>20</sub> 0.9296, n<sub>20D</sub> 1.4256. Similarly were prepared: 84-5% MeCH(OEt)O<sub>2</sub>CCMe:CH<sub>2</sub>, b<sub>24</sub> 65°, b<sub>34</sub> 73°, d<sub>20</sub> 0.9478, n<sub>20D</sub> 1.4200; 78.5% MeCH(OCH<sub>2</sub>Ph)O<sub>2</sub>CCMe:CH<sub>2</sub>, b<sub>15</sub> 83.7-4.0°, d<sub>20</sub> 1.0367, n<sub>20D</sub> 1.5008; 77.8% MeCH(OC<sub>6</sub>H<sub>11</sub>)O<sub>2</sub>CCMe:CH<sub>2</sub>, b<sub>19</sub> 112-12.5°, d<sub>20</sub> 0.9776, n<sub>20D</sub> 1.4560; the necessary vinyl cyclohexyl ether, b<sub>23</sub> 52-4°, d<sub>20</sub> 0.888, n<sub>20D</sub> 1.4547.  
IT 143556-62-1P, Ethanol, 1-(cyclohexyloxy)-, methacrylate  
(preparation of)  
RN 143556-62-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester (9CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)

IT 2182-55-0P, Ether, cyclohexyl vinyl 51920-52-6P, Ethanol, 1-ethoxy-,  
 methacrylate 85997-75-7P, Ethanol, 1-butoxy-, methacrylate  
 143556-62-1P, Ethanol, 1-(cyclohexyloxy)-, methacrylate  
 408536-57-2P, Ethanol, 1-(benzyloxy)-, methacrylate  
 (preparation of)

L9 ANSWER 48 OF 48 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1953:28618 HCPLUS Full-text

DOCUMENT NUMBER: 47:28618

ORIGINAL REFERENCE NO.: 47:4850a-e

TITLE: Synthesis and properties of 1-alkoxyethyl esters  
 of unsaturated carboxylic acids (acylals)AUTHOR(S): Shostakovskii, M. F.; Gershtein, N. A.; Raskin,  
 Ya. L.; Ostroumova, L. E.SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya  
 (1952) 471-7

CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

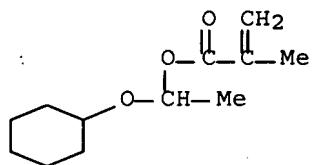
ED Entered STN: 22 Apr 2001

AB cf. C.A. 43, 3785.9. The syntheses of the acylals are based on addition of methacrylates to vinyl ethers. Heating 100 g. cyclohexanol and 10 g. KOH with C<sub>2</sub>H<sub>2</sub> at 148-50° in an autoclave at 14-18 atmospheric pressure maintained by portionwise addition of C<sub>2</sub>H<sub>2</sub> gave 68.6% vinyl cyclohexyl ether (I), b<sub>23</sub> 52-4°, b<sub>37</sub> 63°, b<sub>15</sub> 47.2-7.5°, n<sub>D20</sub> 1.4547, d<sub>420</sub> 0.888. Under the same conditions 210 g. cyclohexanol and 20 g. KOH gave 69.5% I; I hydrolyzes readily to AcH with 2% H<sub>2</sub>SO<sub>4</sub>. Similar conditions yield from 110 g. PhCH<sub>2</sub>OH and 11 g. KOH 62% vinyl benzyl ether (II), b<sub>22</sub> 81.5°, b<sub>24</sub> 82.5°, n<sub>D20</sub> 1.5185, d<sub>420</sub> 0.9711; PhCH<sub>2</sub>OH (80 g.) and 8 g. KOH gave 68%. Freshly distilled CH<sub>2</sub>:CMeCO<sub>2</sub>H (III), b. 160-1°, n<sub>D20</sub> 1.4113 (10.8 g.), and 20 g. II in a sealed tube gave in 4.5-5.0 hrs. at 100° 78.5% CH<sub>2</sub>:CMeCO<sub>2</sub>CHMe-OCH<sub>2</sub>Ph (IV), b<sub>14</sub> 82-2.2°. Addition with stirring of 0.05% by weight of 2% alc. H<sub>2</sub>SO<sub>4</sub> to 5 g. III and 12.7 g. II caused a mild exothermic reaction with temperature rise to 50° in 1.25 hrs.; stirring 3 hrs. at 50° and letting stand overnight gave 77.6% IV, b<sub>15</sub> 83.7-4.0°, n<sub>D20</sub> 1.5008, n<sub>420</sub> 1.0367, hydrolyzed with formation of AcH by 2% H<sub>2</sub>SO<sub>4</sub>. Similarly, 8.6 g. III and 20.6 g. I in 5 hrs. at 100° gave 77.8% CH<sub>2</sub>: CMeCO<sub>2</sub>CHMe-OC<sub>6</sub>H<sub>11</sub> (V), b<sub>20</sub> 114-15°; the 2nd method with 7 g. III and 19.4 g. I gave 79.1% V, b<sub>19</sub> 112-12.5°, b<sub>20</sub> 113.5-14.0°, n<sub>D20</sub> 1.4560, n<sub>420</sub> 0.9776. Similarly was obtained 93.3% CH<sub>2</sub>: CMeCO<sub>2</sub>CHMeOPh (by the 2nd method with H<sub>2</sub>SO<sub>4</sub> catalyst after 2.5 hrs. at 60°), b<sub>15</sub> 98-9°, b<sub>20</sub> 129-30°, n<sub>D20</sub> 1.5030, n<sub>420</sub> 1.0561 (VI). The nature of the radical in the OR portion of these acylals affects the ease of hydrolysis. If R is aliphatic the cleavage occurs in few min. at room temperature with 2-5% H<sub>2</sub>SO<sub>4</sub>; with a cyclohexyl group it requires 25-30 min., with a PhCH<sub>2</sub> group 1 hr., and with a Ph 3-5 hrs. at 100°.

IT 143556-62-1P, Ethanol, 1-(cyclohexyloxy)-, methacrylate  
 255716-77-9P, Acetaldehyde, phenyl hemiacetal, methacrylate  
 (preparation of)

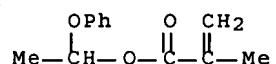
RN 143556-62-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-(cyclohexyloxy)ethyl ester (9CI) (CA INDEX NAME)



RN 255716-77-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-phenoxyethyl ester (9CI) (CA INDEX NAME)



CC 10 (Organic Chemistry)

IT 935-04-6P, Ether, benzyl vinyl 2182-55-0P, Ether, cyclohexyl vinyl  
7472-43-7P, Hexanoic acid, 6-benzoyl- 143556-62-1P, Ethanol,  
1-(cyclohexyloxy)-, methacrylate 255716-77-9P, Acetaldehyde,  
phenyl hemiacetal, methacrylate 255716-77-9P, Ethanol,  
1-phenoxy-, methacrylate 408536-57-2P, Ethanol, 1-(benzyloxy)-,  
methacrylate  
(preparation of)

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(FILE 'HOME' ENTERED AT 12:47:52 ON 18 SEP 2007)

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SEL RN

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D SCA  
L5 105 SEA SSS FUL L3  
L6 10 SEA ABB=ON PLU=ON L2 AND L5  
SAV L5 BER120/A

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L9 48 SEA ABB=ON PLU=ON L8 AND PREP/RL  
L10 2 SEA ABB=ON PLU=ON L6  
L11 1 SEA ABB=ON PLU=ON L9 AND